



UNIVERSITY OF
EASTERN FINLAND

UTOPIAN THINKING IN SMART TOURISM DEVELOPMENT: RETHINKING THE HELSINKI
TOURIST INFORMATION SERVICE CONCEPT. A CASE STUDY.

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Research on smart tourism and smart destinations has been criticized to neglect the tourists' point of view and lacking concrete ways how to implement smart tourism development. In response, some scholars have suggested the use of a bottom-up approach and the Utopian thinking concept as alternative means to add to the under-researched tourists' perspective in smart tourism efforts.

This study followed these suggestions from prior research in the smart tourism development scenario of Helsinki. City of Helsinki was the study commissioner and the destination aspiring to be developed into the smartest. The smart tourism development scenario was particularly the rethinking of the service concept of the Helsinki Tourist Information. The study explored consumers' visions of their ideal future of travel to give insights into the new service concept. The focus was especially on the role of smart technologies and Tourist Information in the visions.

The study took a qualitative approach and was carried out as an intrinsic case study. Data was collected by benefiting a narrative futuring method. Inspired by Utopia thinking, informants were asked to write a fictional story of their ideal trip to Helsinki based in the year 2042. The data collection resulted in 12 stories that were analysed using thematic analysis.

The findings of this study indicated that smart technologies have a crucial role in travelers' ideal experience of the future. Travelers were found to expect sophisticated technological solutions that gave them more advanced information. Considering Tourist Information, travelers were found to value the specialized human knowledge and personal contact available there. In addition, Tourist Information was found to contribute to the travel-related technological infrastructure in the destination.

Based on the research results, recommendations were given for the new service concept of the Helsinki Tourist Information. The study contributes to research by adding to the tourists' point of view and exploring the use of Utopian thinking in a smart tourism development scenario. Future

research is needed to explore more ways how to achieve the idea of smart tourism in practice while including the traveler perspective.

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Älykästä matkailua sekä älykkäitä matkakohteita koskevaa tutkimusta on kritisoitu vähäisestä matkailijanäkökulman huomioimisesta ja konkreettisten tapojen puuttumisesta älykkään matkailun kehittämiseen. Alan tutkijat ovat suositelleet niin sanottua alhaalta ylös lähestymistapaa ja utopia-ajattelua vaihtoehtoisina keinoina lisätä alitutkittua matkailijanäkökulmaa älykkään matkailun kehittämisessä.

Tutkielmassa sovellettiin näitä aiemman tutkimuksen suosituksia Helsingin älykkään matkailun kehittämisskenaariossa. Helsingin kaupunki oli tutkielman toimeksiantaja sekä matkakohde, jota pyritään kehittämään maailman älykkäimmäksi. Tutkielman kehittämisskenaariolla tarkoitettiin erityisesti Helsingin matkailuneuvonnan palvelukonseptin päivittämistä. Tutkimuksen tavoitteena oli antaa näkemyksiä matkailuneuvonnan uuteen palvelukonseptiin tarkastelemalla kuluttajien visioita heidän ihanteellisesta matkailun tulevaisuudentilasta, jossa painopiste oli erityisesti älykkäiden teknologioiden ja matkailuneuvonnan rooleissa matkailukokemuksessa.

Tutkimus toteutettiin laadullisena, sisäisenä tapaustutkimuksena. Tutkimusaineisto kerättiin narratiivisen tulevaisuudentutkimuksen keinoin. Utopia-ajattelun innoittamana informantteja pyydettiin kirjoittamaan fiktiivinen tarina heidän ihanteellisesta matkastaan Helsinkiin vuonna 2042. Tutkimusaineisto sisälsi 12 tarinaa, jotka analysoitiin temaattisen analyysin keinoin.

Tutkimuksen tulokset osoittivat älykkäillä teknologioilla olevan merkittävä rooli matkailijoiden ihanteellisessa tulevaisuuden matkailukokemuksessa. Matkailijoiden havaittiin odottavan tulevaisuudelta kehittyneitä teknologisia ratkaisuja, jotka tarjoavat heille entistä edistyneempää tietoa. Matkailijoiden havaittiin arvostavan matkailuneuvonnasta saatavaa asiantuntevaa

matkailutietoa ja henkilökohtaista kontaktia. Lisäksi matkailuneuvonnan havaittiin olevan osa matkakohteen matkailuun liittyvää teknologista infrastruktuuria.

Tutkimustulosten perusteella annettiin suosituksia Helsingin matkailuneuvonnan uuteen palvelukonseptiin. Lisäksi tutkimus kontribuoi älykkään matkailun tutkimukseen lisäten matkailijoiden näkökulmaa ja kokeilemalla utopia-ajattelua älykkään matkailun kehittämisessä. Jatkotutkimusta tarvitaan kartoittamaan lisää tapoja, miten älykkään matkailun kehittämistä voidaan toteuttaa käytännössä sisällyttäen samalla matkailijanäkökulma.

Abbreviations

DMO	Destination management organization
SD	Smart destination
ST	Smart technologies
TI	Tourist Information

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Appendix 1. The original instructions for writing the story.

1 Introduction

1.1 Background of the study

In recent years, the travel and tourism industry has witnessed a smart transformation. All of a sudden everything is “smart” (Gretzel, Sigala, Xiang, & Koo, 2015). The term *smart* has become a buzzword to refer to all services and products that are either embedded or improved by the means of technology (Boes, Buhalis & Inversini, 2015). Authors have argued smartness to cause a paradigm shift in the tourism industry (Boes, Buhalis & Inversini, 2016) and an era of smart tourism era to begin (Gretzel, Zhong & Koo, 2016). The smart shift stems from the rapid development of information and communication technologies (ICTs) (Jovicic, 2017), which will continue to accelerate in pace (Tussyadiah & Miller, 2020). This had led to the creation of smart technologies (STs), such as Cloud Computing, Internet of Things, and sensor technologies (Gajdosik, 2020), to name a few. As a result tourism, destinations, tourists nor experiences cannot be thought the same as before (Femenia-Serra, Neuhofer & Ivars-Baidal, 2019). The smart transformation of the tourism industry is illustrated in the Figure 1 below.

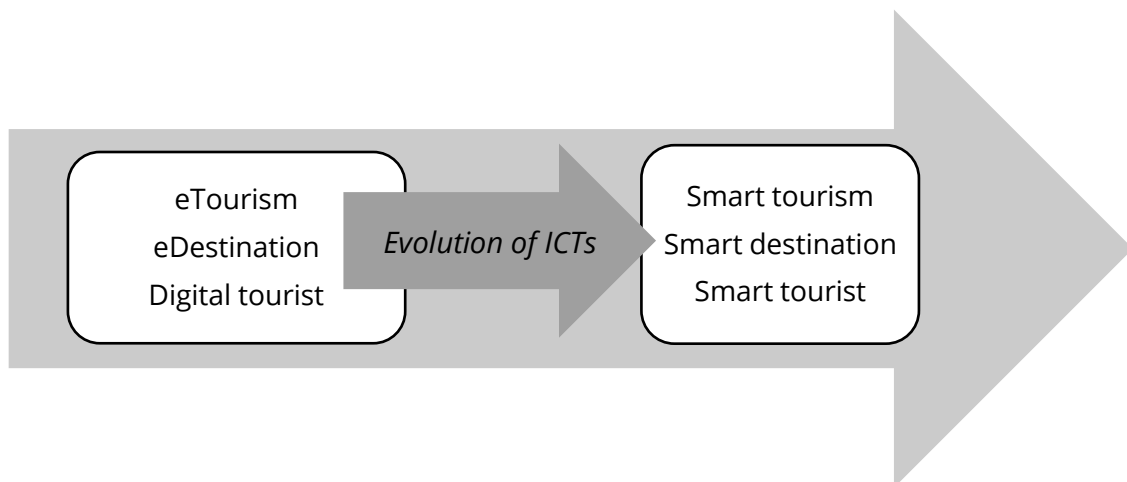


Figure 1. Smart transformation of tourism (paraphrasing Femenia-Serra et al. 2019).

The smart transformation of tourism is no news due to the heavily ICT dependent nature of the field (Femenia-Serra et al, 2019). Without doubt, use of ICTs has always been attractive for the travel and tourism industry, since they may provide significant benefits such as improved

performance for destinations (Buhalis, 2003) as well as more satisfactory travel experiences for tourists (Huang, Goo, Nam & Yoo, 2017). Regardless of the ongoing buzz around smartness, some definitional unclarities exist (Gretzel et al. 2015b) and the research continues to emerge around the topic (Del Chiappa & Baggio, 2015; Jovicic, 2017).

Already over a half a decade ago, Gretzel et al. (2015b) argued for smart tourism being the new status quo in tourism development. Since then, conceptualization of the *smart destination* (SD) has emerged with special attention dedicated to the topic in research (e.g. Boes et al. 2016; Buhalis & Amaranggana, 2015; Gretzel, Zhong & Koo, 2016). The smart destination concept is argued to be continuum for the destination concept (Jovicic, 2017). Consequently, destinations and their DMOs within have been adopting smart destination practices in their tourism strategies around the world. For instance, Spain was one of the early adopters of the smart tourism strategy and the country even has its own national smart tourism destination program (SEGITTUR, "Ejes de actuación", para 1). Also the city of Helsinki, the commissioner of the study at hand, has included smartness in their strategy. The city has stated that Helsinki will be developed as "the smartest tourism destination" (Helsinki City Strategy 2021-2025). Despite the popularity of the concept, it has also received a critique of idealism. According to Ivars-Baidal, Celdrán-Bernabeu, Mazón, and Perles-Ivars (2019), the smart destination describes a perfect destination that is difficult to carry out. Moreover, Gretzel (2021) characterizes smart destinations as being tourism utopias.

Tourists seem to be at the essence of smart destinations and the whole smart tourism scenario. According to Femenia-Serra et al. (2019), the core objective of smart destinations is to improve the quality of tourist experiences by the means of STs. STs can provide better information, efficiency, personalization, and dynamic real-time co-creation of experiences (Huang et al., 2017; Gretzel et al., 2015b; Neuhofer et al., 2015), being thereby useful tools to develop tourist experiences for the better. In practice, this happens when tourists share their data and use the STs. Through this, the tourists and other stakeholders like tourism businesses gain (filtered) key information to help them make better-informed decisions. As a result, improved services and experiences are co-created with tourists. When these steps function properly, a *smart experience*

is realized. The tourist who shares data, uses STs, and co-creates experiences with other stakeholders is called the *smart tourist*. (Femenia-Serra et al. 2019). On a higher level, smart experiences contribute to higher satisfaction and revisit intention for tourists among other destination factors (Buhalis & Amaranggana, 2015; Jeong & Shin, 2020).

1.2 Research gap

As demonstrated, tourists have a crucial role within the smart destination context. In fact, the tourists themselves seem to be both the reason and means for the smart destination to function: when tourists share their data and use smart technologies, the main goal of smart destinations to improve tourist experiences can be reached. Despite tourists having such a vital role in the smart destination context, so far, the empirical research on tourists, their needs, and preferences has been limited within the smart tourism context (Femenia-Serra et al., 2019). Gajdošík (2020) argues that understanding the tourists' perceptions of using ICTs in their different trip phases is more important than ever to achieve better destination management that is based on tourists' behavior. Likewise, Femenia-Serra et al. (2019) recommend smart destinations first make sure that their technological executions are consumer-oriented and in favor of tourists' interests. Together, these studies indicate that the so far neglected tourists' point of view should be considered in the smart tourism development to come.

Not only the traveler perspective has been acknowledged as absent in the smart tourism context, but also the concrete instructions on how to implement smart tourism development and achieve a smart destination scenario (Gretzel, 2021; Ivars Baidal et al., 2019). However, some suggestions have been made to successfully realize the idea of smart tourism. Firstly, to bring forth the limited yet crucial tourist perspective, destinations are recommended to use a bottom-up approach (Femenia-Serra et al., 2019; Gretzel, 2021). Gretzel (2021) challenges the thus far typical top-down approach used in smart tourism development that goes against the participatory nature of smart tourism. Instead, with a bottom-up approach, the tourists have an active role in designing and implementing technological solutions. As a result, the technological solutions are then genuinely fitted to their needs and preferences. (Femenia-Serra et al., 2019).

While Femenia-Serra et al. (2019) call for the use of a bottom-up approach in smart tourism efforts, at the same time they note the difficulty of making it happen. However, some suggestions exist in studies responding to this. Both Gretzel (2021) as well as Tussyadiah and Miller (2020) propose for the use of a collective envisioning of the future as an alternative way to add to the tourist perspective. According to Tussyadiah and Miller (2020), futuring methods enable foreseeing the future needs of people and then preparing for them. In turn, Gretzel (2021) proposes particularly the Utopian thinking concept being a suitable method to imagine the future and suggests exploring it in smart tourism development. Further, both Gretzel (2021) and Tussyadiah and Miller (2020) argue that collaborating with other stakeholders (like the industry players and policymakers) in futuring methods for (smart) tourism development is important, for instance in the creation of tourism strategies.

So far, the above recommendations have remained either unknown or unaccomplished also in the case of Helsinki and its smart tourism development, the destination aspiring to be the “smartest destination”. To act on these recommendations from the literature, the study benefits both the ideas of using a bottom-up approach and futuring method in a smart tourism development scenario. Simultaneously, the study contributes to the research by providing a concrete example of how to go about smart tourism development in a way that the tourists are included in collaboration with destination management. The research gap is summarized in the Figure 2 below.

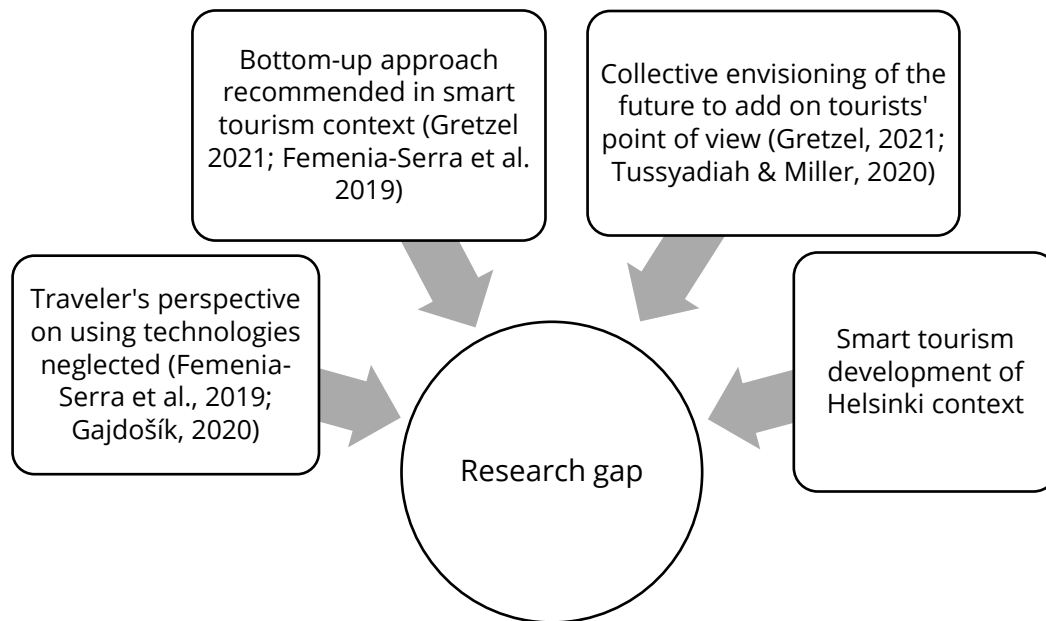


Figure 2. Research gap.

The study is theoretically positioned in the context of smart destinations and the smart tourism development discussions within, where the roles of (smart) technologies and (smart) tourists are essential in the creation of smart experiences. On that account, the roots of the study lie in tourism, more precisely in destinations and tourism development. The study contributes to adding on the tourists' perspective in smart tourism development, the so far neglected area in research. By taking an emic perspective, the study puts tourists' point of view in the center of smart tourism development in the case of Helsinki. Focusing on these issues provides a relevant positioning for study on a smart destination like Helsinki. The limitation is also technology- and customer-driven, which is important to reach the aims of the new TI service concept. The research is structured as follows.

1.3 Purpose of the study

Inspired by the research gap, the study takes a bottom-up approach to challenge the status quo of smart tourism development. To achieve this, the study benefits the idea of using the Utopian thinking concept in a smart tourism development scenario. The scenario is considered here as rethinking the service concept of the Helsinki Tourist Information in specific. Against this background, the study aims to explore consumer visions on their desired state of the future of

travel to provide insights for the new service concept of the Helsinki Tourist Information. The focus is especially on the use of (smart) technologies and the role of Tourist Information in the visions of the ideal travel experience. This way, the new service concept is set to be consumer-oriented and aligned with the smart destination strategy, where the main goal is to improve the traveler experience by the means of smart technologies. The potential managerial contributions of the study are depicted in the Figure 3.

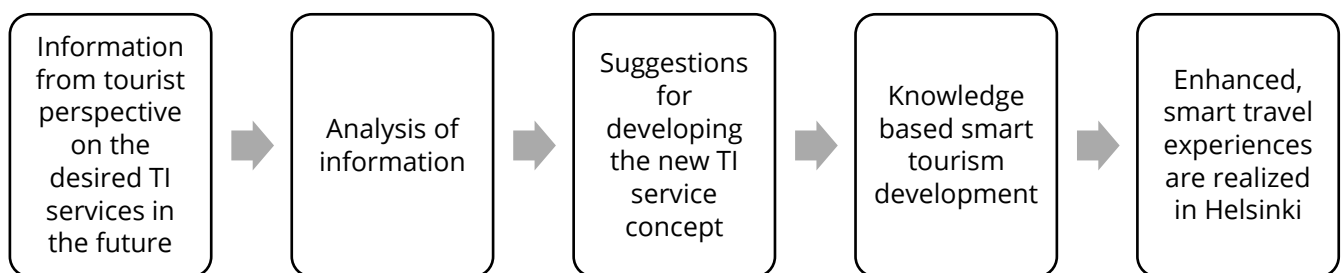


Figure 3. Potential managerial contributions of the study.

As Utopian thinking has to do with envisioning the future, the study aims are met by using a narrative futuring technique. With the narrative futuring technique, the consumers (travelers) are asked to write an imaginary story of their ideal trip to Helsinki in the year 2042 (the utopia). The following research questions were formed to meet the study aims: 1. How do travelers envision a trip to Helsinki in their ideal future? In their visions, 1.1 What kind of perceptions do travelers have on using (smart) technologies? 1.2 How do travelers envision the role of Tourist Information?

The theoretical background is concerned with the novel context of smart tourism. With this, especially the concept of smart destinations and the smart tourism development done in them are of focus. Further, the study also considers smart experiences that take place in a smart destination scenario and the roles of smart technologies and (smart) tourists in the equation. The theoretical background provides a thorough understanding of the earlier research on the topic and is guided by keywords of *smart tourism*, *smart destination*, *smart tourism experience*, *smart technologies*, *smart tourists*, and *utopian thinking*.

1.4 Helsinki Tourist Information

Helsinki Tourist Information (TI) attends the travelers visiting the capital of Finland, the destination with the highest visitation numbers in the country (Visitory, 2022). Its main tasks include customer service, sharing information, and offering inspiration to travelers. The TI service channels include face-to-face service, phone, email, chat, and physical location(s). During this master thesis collaboration project, the main physical location of the TI moved from the Helsinki Central railway station to the Torikorttelit area. During the high season in summer, the TI services are strengthened with summer employees 'Helsinki helpers' circling the city. In addition, extra physical locations Helsinki Biennial Pavilion and container 'Kontti' offering Tourist Information services are established for the summer season. The last summer season (1.6.2022 to 16.8.2022) was a very active period for the TI that had altogether 139 000 customer contacts. During that period, the physical Tourist Information locations were by far the most popular service channel, followed by the Helsinki helpers, chat, phone, and email. (City of Helsinki, 2022).

Until recently, Helsinki TI was part of an independent marketing organization of Helsinki (Helsinki Marketing). However, after the city of Helsinki established Tourism and Destination Management unit in the fall 2021, the Helsinki TI functions were transferred to the city's new DMO. Being part of the city DMO, the strategic document of the Tourism and Destination Management unit called Helsinki Tourism and Events Programme 2022 – 2026 guides also the operations of the TI. On a higher level, also the city strategy affects their operation, where it is stated that Helsinki is to be developed into the smartest destination (Helsinki City Strategy 2021-2025). However, aiming for smartness is nothing new in the tourism development context of Helsinki. In 2019, Helsinki won first place in the competition by European Commission of the European Capital of Smart Tourism 2019 together with the city of Lyon (City Executive Office, 2018, "Helsinki wins European Capital of Smart Tourism 2019 competition", para. 1).

Throughout the years, Helsinki Tourist information has been working actively to develop its operations together with its stakeholders. Regardless of the many research and other development projects to better the operations, so far, the tourists themselves have not been included in those processes as much as wished to. According to the Tourist information manager

Mari Somero, the work has been mostly based on so-called 'silent information' that the TI professionals possess. Therefore, the TI now wishes to focus on including tourist point of view in their development of the new service concept. Moreover, the style of development has been more 'reactive' than 'proactive', which is done for example through following the NPS indicator that measures the loyalty of customers. (City of Helsinki, 2022).

Meanwhile Helsinki aims for the title of the smartest tourism destination, the current service concept of the Tourist Information office has become outdated. For example, the opening hours of the different service channels are no longer the most convenient for travelers who look for guidance also remotely outside the Helsinki time zone. However, the main issue to overcome is the lack of using ICTs in the service concept. According to the Tourism Director of the Helsinki Tourism and Travel Unit Nina Vesterinen, the ICTS have not been benefited to their full potential in the Helsinki TI service concept yet. The new service concept is hoped to be customer friendly, efficient, and exploit the digital. Furthermore, due to the city's smart destination strategy the principles of smart tourism development should be considered. The new service concept of the TI is planned to be put into function during the year 2023. (City of Helsinki, 2022).

Based on the information so far, taking a future-oriented and consumer-centered view is argued as suitable in the kind of a smart tourism development scenario like the rethinking of the TI service concept. This study contributes to the development of the new service concept through exploration of consumer narratives on the future of travel. By this, the study can help the Helsinki TI to rethink its services while considering what travelers desire in the future.

1.5 Key concepts

Key concepts of the study are briefly explained below. A further detailed discussion of the main issues and concepts are provided in the literature review.

Smart destination or smart tourism destination (SDs) is a tourist area that uses smart city principles in supporting mobility, resource management, sustainability, and life quality of the residents as well as the experience quality of tourists (Gretzel et al., 2015b).

Smart experience or smart tourism experience (STE) stands for a technology-mediated and enhanced tourist experience, where tourists have an active role in both creating and consuming them, for example by uploading a post on social media from a certain destination with related tags (Femenia-Serra & Neuhofer, 2018; Gretzel et al., 2015b; Jovicic, 2017).

Smart technologies (STs) are advanced technologic means that in the tourism context may give value for tourists by offering interaction, co-creation, and personalization, therefore lead to improvement of tourist experiences (Neuhofer, Buhalis, & Ladkin, 2015).

Smart tourist is a tourist that co-creates an enhanced and personalized smart experience by sharing their data, using smart technologies, and interacting with other stakeholders. Smart tourists are profiled as their own market segment with distinctive qualities but may vary in their level of "smartness" (Femenia-Serra et al., 2019; Gajdošík, 2020).

Utopian thinking is a heuristic to debate how one lives and could live differently (Abensour, 2008). Gretzel (2021) suggests that the Utopian thinking concept is needed in smart tourism development for a collective envisioning of the future of travel, as smart destinations are basically tourism utopias and utopias are born through Utopian thinking,

2 Smart destination

In the research around smart tourism, the smart destination concept has raised the most attention (Jovicic, 2017). Similarly here, the smart destination is considered as one of the key concepts as the study commissioner is the city of Helsinki, the destination aspiring to be “the smartest”. The following chapters describing the foundations of smart destinations as well as giving a current definition of the concept. Lastly, the smart tourism development that takes place in smart destinations is looked into.

2.1 Foundations of the smart destination

The term smart tourism destination (STD), or smart destination (SD), can be traced back to the smart city concept (Del Chiappa & Baggio, 2015). Smart cities are those that use advanced ICTs in their efforts to optimize resource management and consumption (Gretzel, Werthner, Koo & Lamsfus, 2015). In more specific, smart city is defined as “an urban environment which, supported by pervasive ICT systems, is able to offer advanced and innovative services to citizens in order to improve the overall quality of their life” (Piro, Cianci, Grieco, Boggia & Camarda, 2014, p. 169). It is the smart city concept which then triggered the emergence of smart destinations (Buhalis and Amaranggana, 2014). According to Gretzel et al. (2015b), a smart destination may be described as a special case of smart city. As opposed to smart cities, in smart destinations the center of attention is not just the residents but also the tourists (Boes et al., 2016). In addition, the smart city principles can be benefited in both urban and rural areas in smart destinations (Gretzel et al., 2015b). Therefore, the smart city principles may be applied also to smaller destinations such as villages (Gretzel et al., 2016), hence the smart destination concept is not limited only to cities but can be benefited in destinations of all sizes. This applicability of the smart city concept is beneficial, as many tourism destinations are not cities but may still benefit from it.

The smart destination concept is considered to be evolution to the destination and eDestination concepts (Jovicic, 2017; Femenia-Serra et al., 2019). Despite how all these concepts focus on

destinations per se, they are distinct from each other. In contrast to the traditional understanding of destinations, the smart destinations depends on data in its operations (Femenia-Serra & Ivars-Baidal, 2021). Another distinguishable factor is the difference on the role of ICTs in the destination. Whereas eDestinations use ICTs to provide information and transactions, the ICTs are more crucial in smart destinations, where they are embedded to all elements and more advanced technologies such as the Internet of Things are used (Femenia-Serra et al., 2019). Moreover, while the emphasis in eDestinations is the digital sphere, in SDs the key aspect is the integration of digital with physical infrastructure (Gretzel et al., 2015b). It can be said that smart destination is an advanced version and a step further from the preceding destination concepts. This is supported by a similar division in the literature, where a shift is seen from eTourism to smart tourism (Gretzel et al., 2015b) and from digital tourist to smart tourist (Femenia-Serra et al., 2019).

2.2 Defining the smart destination

There are few critical qualities that characterize smart destinations and make them “smart”. Firstly, smart destinations are able to adopt different advanced ICTs for a better interconnection between the destination stakeholders. Secondly, smart destinations make high use of the tourism data obtained from the interconnectedness, giving them a better understanding of tourist behaviour. (Femenia-Sierra & Ivars-Baidal, 2021). With these core qualities in mind, the main objectives of smart destinations is to increase the destination competitiveness and the quality of the tourist experience throughout the travel journey (Boes et al., 2016; Buhalis & Amaranggana, 2014). In this paper, the focus is on the latter aim of improving the tourist experience, as it was found to be the more discussed in literature. Moreover, the focus in accordance with the study aims to bring insights for the benefit of the Helsinki Tourist Information, which has to do directly with improving the tourist experience.

The smart destination is an evolving term and several definitions have been proposed. To date, there has not been a general agreement on the definition (Del Chiappa & Baggio, 2015). However, one of the most commonly used one is provided by the Spanish innovation fostering

institution SEGITTUR (2015, p. 32), that has defined the smart destination as “An innovative tourist area, accessible to everyone, and built on a state-of-the-art technological infrastructure, which guarantees a sustainable development of territory, facilitates the interaction of visitors and their integration in their surroundings and enhances the quality of their experiences at destinations and the residents’ quality of life.”. This definition by SEGITTUR (2015) applies throughout the study, as it recognizes the multidimensional nature of the term and is widely adopted in the industry.

As can be noted from the given definition by SEGITTUR (2015), smart destinations are not solely about technology: also the sustainability and inclusivity issues are an essential part of the concept. However, the given definition has been also criticized for its idealism. For example, Ivars-Baidal et al. (2019) have accused the definition to describe a perfect tourist destination which is difficult to realize. That said, the idea of a perfect destination is probably one reason for the popularity of the smart destination concept among travel and tourism industry. To realize a smart destination, Ivars-Baidal et al. (2019) have called for operative models to combine the scientific knowledge with destination management, as well as for holistic view in exploiting the technological opportunities in smart destinations.

Smart destinations can be also understood as ecosystems, or as a part of an ecosystem. Whereas Gretzel et al. (2015a) and Boes et al. (2016) have used the term smart tourism ecosystem (STE) when referring to smart destinations, Femenia-Serra et al. (2019) understand smart destinations as one part of a wider smart tourism ecosystem. A further definition of the smart tourism ecosystem is given by Gretzel et al. (2015a, p. 560) describing it as tourism system that “takes advantage of smart technology in creating, managing and delivering intelligent touristic services/experiences and is characterized by intensive information sharing and value co-creation”. The STE is constituted by a variety of stakeholders that encompass tourists, residents, suppliers, intermediaries, regulatory bodies, non-governmental organisations, transportation, global distribution systems, support and consult services, infrastructure such as parks and museums as well as companies from other industries like retail or medics. The vast number of micro-organisms such as family businesses within the ecosystem is deemed as a

special quality for tourism (Gretzel et al., 2015a). Alike SDs, STEs share the same common goal of improving the tourist experience, in specific as enhanced, meaningful, and sustainable experience (Gretzel et al., 2015a). Even if the understanding on SDs and STEs may have minor differences between the authors, in any event, the concepts are highly related.

As the use of technologies, in more specific *smart technologies* or *advanced technologies*, is a central concern in smart destinations, it is then necessary here to clarify what is meant by these. According to Femenia-Serra et al. (2019), the extensive list of smart technologies include the following advancements: ambient intelligence (Aml), ubiquitous computing, Internet of Things (IoT), Big Data, cloud computing, ubiquitous connectivity, Near Field Communication (NFC), Radio-Frequency-Identification (RFID), smart sensors, mobile connected devices like smartphones, Beacons, virtual reality (VR), augmented reality (AR), mobile applications, integrated payment solutions, smart cards, social networking sites and similar websites among others. Many of these smart technologies are interconnected and overlapping with each other when in use, for example when using a mobile application from a smartphone. In fact, the the combined use of the technologies creates the smartness (Femenia-Serra & Ivars-Baidal, 2021). Practical examples how these smart technologies can be benefited in smart destinations are given in the following chapters.

Despite the growing attention around the topic, the theoretical development on smart destinations remains limited (Femenia-Serra et al., 2019). To date, the smart destination approach still lacks in conceptual precision (Ivars Baidal et al., 2019). It has to be also mentioned that alike ICTs, also the smart destination approach is going through own hype cycle (Ivars-Baidal et al., 2019) and the concept suffers from oftentimes being referred as a buzzword (Gretzel et al., 2015b). Thus far, the scholars have highlighted different aspects what comes to smart destinations. However, they agree on the key aspect in SDs being the bridging of the physical world with digital in their efforts to reach their ultimate aim, that is improving the tourist experience. To understand how this aim is met, the following chapter moves on to depict the operating logics of smart destinations.

3 Smart tourism development

As introduced, the evolution of ICTs has shaped greatly the tourism industry. Ivars-Baidal et al. (2019) argue this evolution to have resulted in new scenarios for destination management, from where the smart destination approach is the most significant one. To understand how the main goal of SDs to improve tourist experiences is reached, one cannot overlook the actual processes that take place behind it. This is not an easy task: meanwhile the literature has stated ambitious aims and possibilities regarding smart tourism development, yet practical instructions to realize these issues are scarce (Gretzel, 2021). Also the examples of the smart destination as a destination management approach and whether it has concrete impacts on the destination are limited (Femenia-Serra & Ivars-Baidal, 2021). The following chapters open up what is known about the smart destination approach in tourism development thus far and look into proposed models and frameworks from the literature.

3.1 Operating models and frameworks

To begin with, technology is seen as an infrastructure in smart tourism development. As opposed to individual information systems, the smart tourism infrastructure incorporates an array of smart technologies and systems (Gretzel et al., 2015b) such as the IoT introduced in the earlier chapter. Furthermore, the smartness then stems from the interconnectedness, synchronization, and joint use of the different technologies (Höjer & Wangel, 2015 in Gretzel et al., 2015a). In smart tourism development, providing a bridge between the digital and physical world is in the essence (Gretzel et al., 2015b). This is also very important specifically in regard to the SD aim to improve the tourist experiences (Femenia-Serra et al., 2019), which is met as follows.

According to theories, a central technological platform is needed within the smart tourism infrastructure (e.g. Femenia-Serra & Ivars-Baidal, 2021; Femenia-Serra et al., 2019; Buhalis & Amaranggana, 2014) and for the destination to become smart (Gretzel et al. 2015a). Also referred to as central intelligence system, centralised information platform, digital ecosystem, or

just a technological platform (Buhalis & Amaranggana, 2015; Buhalis & Amaranggana, 2014; Gretzel et al., 2015a), it includes data that different the destination stakeholders generate and assess the tourist behaviour with as far as possible (Femenia-Serra & Ivars-Baidal, 2021). The central intelligence system enables interconnecting the different stakeholders, integrating data from different sources, and sharing information dynamically in real time (Femenia-Serra et al., 2019). The process creates large amount of data, also referred to as Big Data, which is then further analysed and benefited in decision-making. This is helpful considering the recommendation of smart destinations and its stakeholders to design their services according to each tourists' preferences at the right time, thus enhancing tourist experiences. (Buhalis & Amaranggana, 2015). The kind of technological advancement like the central intelligence system is crucial since data (Gretzel et al., 2015b) and the enhancement of collective intelligence (Boes et al., 2016) are in the core in smart destination activities. Femenia-Serra & Ivars-Baidal (2021) mention following the tourists credit card transaction data and using sensors for measurement as examples of this kind of intelligence in destinations. However, Gretzel et al. (2015b) note that this kind of systematic and widespread coordination, sharing and exploitation of touristic data for a value creation is still in its infancy.

Another model to increase the understanding the logics of smart tourism development and use of data within is provided by Femenia-Serra et al. (2019), who depict the smart destination functioning as a 'machinery' (Figure 4). The 'machine' is started when the smart tourists share their data and use smart technologies. This action starts a process where the respective data then flows into the central intelligence system. After the data is filtered in the central intelligence system, it will give key information for the destination stakeholder, namely fellow tourists, tourism businesses and organisations. With the filtered key information, the destination stakeholders are again able to make better decisions for their business based on actual tourist data when designing enhanced services and experiences with tourists. With those better-informed decisions, the destination stakeholders are helped to achieve the smart destination main goal, to improve the quality of the tourist experience. When all of these steps of the smart destination 'machinery' are done, a cocreated *smart experience* is realised. (Femenia-Serra et al., 2019). When destination strives for smart tourism development, it should focus on ensuring that

its technological infrastructure supports the theoretical process of smart experience creation depicted in the Figure 4. The later chapters will dive into the concept of smart experience in more detail.

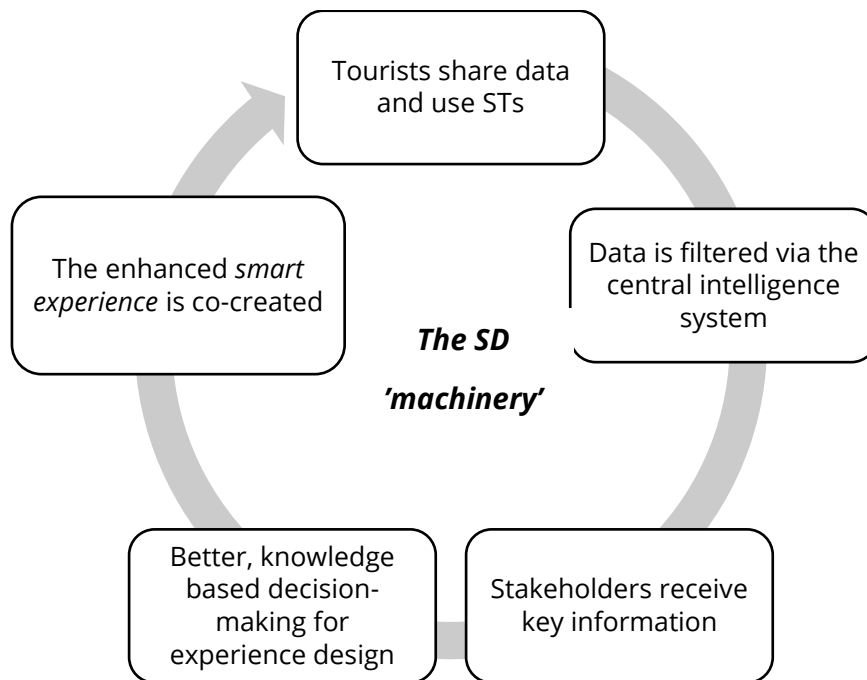


Figure 4. Smart destination principle of operation (paraphrasing Femenia-Serra et al. 2019).

In their more recent paper, Femenia-Serra and Ivars-Baidal (2021) argue that the smart destination theories must be turned into “smart solutions”, so that destinations could actually make use of them. Smart solutions are those applications and tools based on technology and used by the DMOs in smart destinations to reach their main aims: to enhance tourist experience as well as their own management processes. In their model, three interrelated levels are introduced (strategic-relational, instrumental, and applied) with five scopes (visitor and site management, destination intelligence, marketing, experience enhancement, and tourist information) where the smart solutions (connectivity, information system, innovation, sustainability, and governance) can be applied. (Femenia-Serra & Ivars-Baidal, 2021). The model provides a good outlook on what can be done and in what levels regards to smart tourism development to reach the SD aims.

3.2 Role of the DMO

As described, DMOs indeed hold a crucial role in enabling a functional smart destination scenario. So far, smart destinations have been greatly publicly and DMO driven (Femenia-Serra & Ivars-Baidal, 2021). First of all, the technological infrastructures in destinations such as the central intelligence system, are recommended to be build and maintained by the destination management organisations (Femenia-Serra et al., 2019). Second, DMOs are recommended to hold a role of an owner and coordinator in SD scenarios when it comes to management of the data, driving collaboration, and ensuring a seamless communication with tourists during their travel path meanwhile taking care of the privacy and security matters (Femenia-Serra et al., 2019). On top, Gajdosek (2020) proposes that in order to reach the smart tourist segment, DMOs should rethink their business models in a way that value propositions are created throughout the different trip experience phases with the use of personalization and experience enhancement. Finally, the progress of the smart destination approach in tourism development should be measured, for which Ivars-Baidal, Celdrán-Bernabeu, Femenia-Serra, Perles-Ribes, Giner-Sánchez (2021) have developed a useful indicator system for DMOs in their study. All of these actions require great efforts from the DMOs in implementing a successful SD scenario.

One cannot forget how the above-described smart destination scenario is further connected to the global smart services ecosystem when those data flows that are not controlled by the DMO continue their way outside of the destination. Afterwards, stakeholders like OTAs, sharing economy companies and other businesses also make use of the data in their businesses for better decisions. All in all, the connection between the DMO controlled SD scenario and the broader smart ecosystem is complicated: in many turns the DMO is under the threat of not controlling all the data generated from tourists' use of STs. However, the responsibility remains for the destination to enhance the tourists experience and satisfaction according to their needs and preferences. (Femenia-Serra et al., 2019).

3.3 Challenges in smart tourism development

The smart destination approach is not critique-free and has its own challenges when it comes to destination management. Ivars-Baidal et al. (2019) found in their research how there are obstacles especially in the strategic-relational level, resulting the challenges being more governmental rather than technological. This in turn suggests that the functions of destination management organizations should be reorganized as follows. One of the threats is the smart destination approach to be quickly executed from the views of tech companies and their own interests. To overcome this, the suitable STD model is to be determined and adopted according to the needs and resources of the specific destination in question. To apply and innovate ICTs in DMOs, structural limitations such as lack of ICT skills must be solved. This may mean reinforcement of capacities in DMOs. Lastly, a high degree of local cooperation is needed in developing a smart destination. Chances for a successful smart destination development are better for those DMOs with agile organizational structure, willing for public-private collaboration and rich in economic and human resources. Moreover, in addition to the technological availability, a shared strategy between the destination actors is important to fully exploit the technological opportunities. (Ivars-Baidal et al., 2019). In their paper Boes et al. (2016) state that to become a smart destination leadership, vision, patience, strategic management as well as endless evaluation and change are needed. Despite the many issues that may hinder the development of smart destination approach, Ivars-Baidal et al. (2019) conclude the highly ambitious approach being a feasible one.

4 Smart experience

Previously the functioning of smart destinations and smart service ecosystems was depicted in detail, where the smart experience is created as a byproduct. As the smart experiences occur within the smart destination, the concepts of smart destination and smart experience are closely related. The following chapter moves on to define the smart experience and discuss the roles of technologies and tourists within them.

4.1 Defining the smart experience

The smart experience has strong relation to the tourist experience concept. In a way, the smart experience can be understood as a form of the tourist experience where technology is benefited. Inclusion of technology is a core quality, as smart experiences are technology-mediated tourism experiences (Buhalis & Amaranggana, 2015). The use of ICTs in tourist experiences is not new, as they have a history in connecting the value-adding elements to experiences (Gretzel et al., 2015a). The ICTS have facilitated and enhanced the tourist experience more and more throughout the different travel phases (Tussyadiah & Fesenmaier, 2009). However, the recent evolution of ICTs has also led to transformation of the tourist experience. As the ICTs keep on evolving, so do the tourist experiences, which have become smart in the process (Femenia-Serra & Ivars-Baidal, 2021). As a practical example, the variety of technologies such as location-based services may help tourists with navigation to places, gaining information and making bookings (Neuhofer et al., 2015). The ever-continuing unpredictable evolution of ICTs also poses a challenge for destinations in their efforts to create smart experience when deciding on which technologies to invest (Femenia-Serra et al., 2019).

The concept of the smart experience has incrementally emerged from the preceding literature. A decade ago, Neuhofer et al. (2012) introduced a very similar initial concept of the *technology enhanced destination experience*, which has built a firm basis for the creation of the smart experience together with similar papers. Different closely related terms have been used in the smart experience discourse when depicting and referring to these technology-mediated co-

created experiences, nowadays conceptualized as smart experiences. Authors have mentioned the following terms independently or combined in the literature around the smart experience: personalized experience (Femenia-Serra et al. 2019; Neuhofer et al., 2015), enhanced (Femenia-Serra et al. 2019; Buhalis & Amaranggana, 2015; Neuhofer et al., 2012), connected (Femenia-Serra et al. 2019; Neuhofer, 2016), favourable (Huang et al., 2017), memorable (Jeong & Shin, 2020), meaningful (Gretzel et al., 2015a; Neuhofer et al., 2015), efficient and rich in meaning (Gretzel et al., 2015b). Despite the different terms used, all of them are associated with the ultimate goal of smart destinations: improving the tourist experience with the use of (smart) technologies.

According to Buhalis and Amaranggana (2015), it is crucial for DMOs to consider how tourism experiences can be enhanced, as they have direct influence on tourist's satisfaction and revisit intention. In their paper, experiences are suggested to be enhanced with technology mediation by personalization, attention in context and real time monitoring of information. Moreover, they found that the tourists expect a variety personalized services in smart destinations from the pre- to post-trip phases for experience enhancement. First, when planning the trip, the tourists expect support in the form of personalized information for more knowledgeable decision making. During the trip in the destination, the tourists were found to expect real-time access to information, direct personalized services, and feedback loop. After the trip was over, the tourists sought for prolonging engagement and feedback possibility for reliving and reviewing their experience. (Buhalis & Amaranggana, 2015). These findings highlight the importance of real-time connectedness and responsivity, giving great implications for the DMOs in aspiring smart destinations.

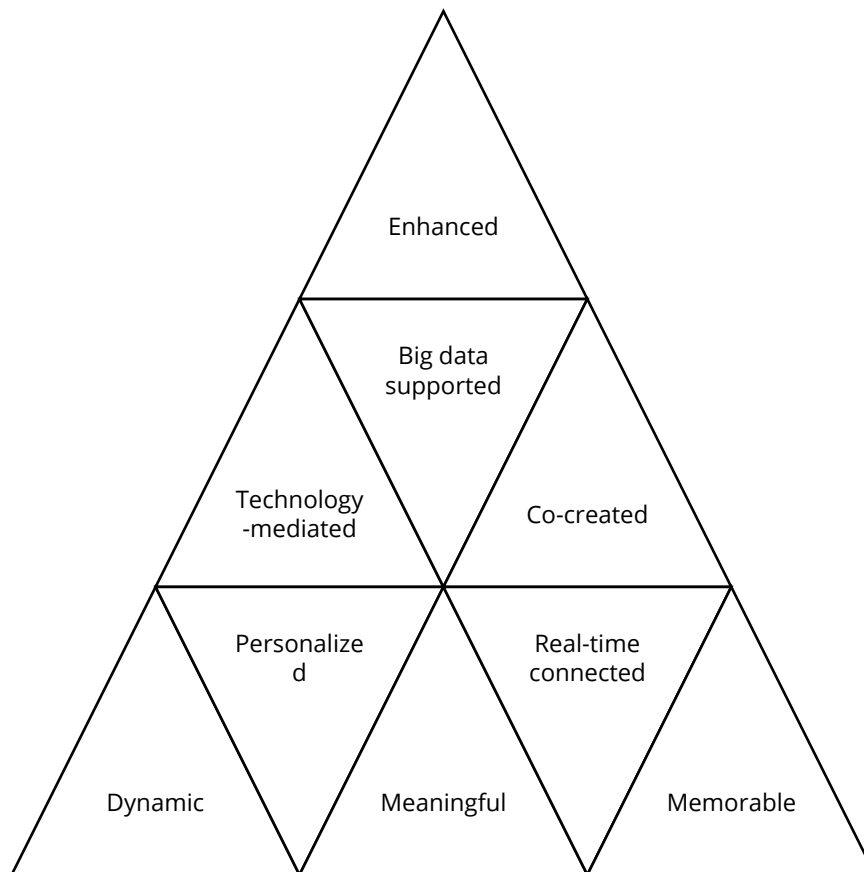


Figure 5. Dimensions of the smart experience (paraphrased from Femenia-Serra et al., 2019; Gretzel et al., 2015a; Gretzel et al., 2015c; Jeong & Shin, 2020).

Another core characteristic of smart experiences that has to be brought up is the co-creation of the smart experience. In this context, the co-creations means that other actors are joint in the creation of the experience. Nowadays it is recognized, how experiences are no longer static nor pre-designed (Neuhofer et al., 2015). In turn, experiences have become co-created in personalized, dynamic manner in real-time (Neuhofer et al., 2015). The actors in the co-creation are the different stakeholders of the smart service ecosystem (Femenia-Serra et al., 2019), such as the tourist themselves or tourism agents. In the smart approach, experience co-creation is bettered with boosting interaction, increasing experience participation, and sharing the experiences among tourists (Buonincontri, & Micera, 2016). It has to be highlighted how the tourists themselves are indeed active participants in the creation of the smart experience (Gretzel et al., 2015b). The tourists consume experiences as well as contribute to their creation and improvement with their data, for example when uploading material of destination to social media (Jovicic, 2017). This is also supported by Femenia-Serra et al. (2019), who stress the

important role of tourists in the creation of smart experiences. To sum up, the different dimensions of the smart experience are depicted in the Figure 5 above. The following chapters will give a detailed overview of the roles of the ICTs as well as the tourists within the smart experience.

4.2 The role of smart technologies

In the context of tourism research, the previously provided comprehensive list of smart technologies may be also referred to as smart tourism technologies (e.g. Huang et al., 2017). Smart tourism technologies are understood as all online tourism applications and information sources from smart devices to online technologies such destination website and social media (Huang et al., 2017). The following chapter will explain the vital role of smart technologies within the smart experiences.

Smart tourism technologies are needed in creation of the smart tourist experience. They have great benefits when introducing positive impact on both the tourist experience as well as financially for the experience providers (Neuhofer, Buhalis, & Ladkin, 2014). According to Neuhofer et al. (2015), when applied, the smart technologies are tools, products, and services, that nurture greater connectivity, interaction, personalization as well as co-creation. Typically to smart technologies, these actions are executed in a dynamic and agile manner in real time (Gretzel et al., 2015b; Neuhofer et al., 2015). In an instrumental level, smart technologies can be said to assist in facilitating service encounters, consumer profiling, experience co-creation (Neuhofer et al., 2015), providing rich information, greater efficiency, and overall enablers of a smart experience (Huang et al., 2017). The use of smart tourism technologies in destination maximizes tourist experience by giving tourists freedom, independence, and selective participation in unique and memorable tourism activities. This in turn results to higher satisfaction and revisit intentions for tourists. (Jeong & Shin, 2020). Moreover, in their study Tussyadiah, Wang, Jung and Dieck (2018) found that use of VR technology in experiences had a positive impact on the visit intention of the study participants and confirms the technology as an effective marketing tool. Thus, it is no wonder how destinations around the world are exploring

the possibilities to invest in smart technologies. The importance of smart technologies for tourism accelerates as they continue to grow in popularity, improve in functionality and contribute positively to experiences (Huang et al., 2017).

Smart technologies hold great potential to exploit for the tourism industry in particular. This is because tourism businesses and organizations are intrinsically dependent on creating personal experiences and facilitating better value extraction for tourists in their search for competitive advantage (Neuhofer et al., 2015). However, Neuhofer et al. (2015) highlight smart technologies should not replace real human encounters: they are meant as instrumental means assisting in the human-lead processes of strategic improvement of experiences. Moreover, the control should be left for the tourists to decide should they wish to have a connected smart experience (Femenia-Serra et al., 2019). In addition, as an exception to the prevalent opinion of connectedness to mainly enhance experiences and co-create value, some academics (e.g. Neuhofer, 2016) have investigated whether the connected experience may also lead to “value co-destruction” and call for more critical views to the issue.

Scholars have also focused on determining the optimal characteristics of smart technologies in the context of improving tourist experiences. In their study, Neuhofer et al. (2015) recognized systematic aggregation of customer information, ubiquitous mobile connectivity, and real time synchronization as necessities from smart technologies for the cocreation on experiences. Furthermore, they found two ways how smart technologies can contribute to personalization of tourist experiences. First, the personalized experience may be customized in line with the information of the customer’s needs. The second level is the personalization according to one-to-one interactions, meaning for example a hotel employee to address the guest by their name that the hotel employee obtained through a smart technology upon their encounter.

Huang et al. (2017) have identified four attributes of smart tourism technologies which improve the usability and user perceived usefulness of them, namely informativeness, accessibility, interactivity, and personalization. Informativeness describes the quality and trust of information that the online tourism information sources provide, whereas accessibility describes the ease of

access and use of those sources. Interactivity depicts tourists' instant actions when using smart tourism technologies, while personalization has to do with tourists getting information according to their personal needs. These four attributes result in satisfactory travel experiences and therefore should be paid attention to in the design of smart experiences. (Huang et al., 2017).

Building on top of the study by Huang et al., (2017), Jeong and Shin (2020) recognized in their study that from these three smart tourism technology attributes, informativeness, interactivity and personalization were the most important factors that affected the tourist experiences and behavior intentions. More specifically, the three attributes influenced the experience, satisfaction, and revisit intention of tourists. Also the perceived security of tourists was found important in relation to these three attributes and tourists memorable experiences. Therefore, to successfully use smart tourism technologies in destinations, also the safety and privacy concerns must be addressed. Moreover, tourists were found to have high expectations from the use of smart technologies in destinations. They expect advanced interaction and personalization as well as reliability and usefulness from their user experience. (Jeong & Shin, 2020). As earlier stated, smart experiences would not occur without the data and use from the tourists themselves. The following chapter moves on to describe the smart tourist concept and their role within the smart destination and smart experience scenarios.

4.3 The role of smart tourists

The evolution of ICTs is acknowledged to have influenced the emergence of smart destinations and smart experiences within. In addition to these, the tourists themselves have been influenced by the advancements of ICTs. The ICTs have shaped the overall customer behavior (Gretzel et al., 2015a), thus, also the behavior of tourists (Law & Buhalis, 2008). In the earlier literature the role of tourists in creation of experiences has been neglected and understood as passive (Neuhofer et al., 2012). Until recently, a shift has happened, and the tourists were officially recognized as value-cocreators (Vargo & Lusch, 2007). Today, the tourists are acknowledged to be in an important role in actively co-creating smart experiences. Tourists consume, create, share,

process and contribute to the data creation in experiences (Boes et al 2016; Gretzel et al., 2015b). Furthermore, the changed environment has given rise to the *smart tourist* concept.

So far, only a few notions about the novel *smart tourist* concept exist in the literature. The term can be traced back notions of tourists using new technology-mediated ways on their travels from planning to experiencing and recommending (Law & Buhalis, 2008) and describing the new tourist who is knowledgeable and empowered in their pursuit of experiences and value (Neuhofer et al., 2012). The exact term *smart tourist* was first used by Gretzel et al. (2015b), who argued that the smart tourists use smart devices to add value to their experience and by Gretzel, Reino, Kopera and Koo (2015), who noted their contribution with data when using personal technologies in smart destinations. In more recently, authors have contributed to the smart tourist literature for example Femenia-Serra, Perles-Ribes and Ivars-Baidal (2018) found evidence of the growing emergence of the smart tourist, followed by Femenia-Serra et al. (2019) conceptualizing the smart tourist and their role in the smart destinations, Gajdošík (2020) defining smart tourists as their own market segment which was continued further by Gajdosik, Marakova, and Kucerova (2021) reviewing the research on future scenarios and development of tourists. In addition Jin, Zhu, Chen and He (2020) have discussed smart tourist attractions and Nezai, Abdellah and Yazid (2021) smart tourist destinations in specific. However, empirical evidence from the tourists perspective in relation to smart destinations remains limited (Femenia-Serra & Ivars Baidal, 2021).

Femenia-Serra et al. (2019) were the first to introduce a conceptualization of the smart tourist and their role within the smart destination scenario. In their definition, three qualities are recognized to characterize the smart tourists. Firstly, the smart tourists are willing to share data such as their personal information, preferences, social media profiles and location with other stakeholders in exchange for worthwhile benefits such as personalized suggestions for their trip or in other words, value. Secondly, the smart tourists benefit from smart technologies which they consider useful, easy to use and enriching to their experience. In addition to enrichment of their own experience, smart tourists use smart technologies to interact and co-create experiences with other stakeholders of the smart destination, which is the third characteristic of

the smart tourist. Finally, Femenia-Serra et al. (2019, p. 122) define the smart tourist as “the tourist who, by being open to sharing his or her data and making use of smart technologies, interacts dynamically with other stakeholders, co-creating in this way an enhanced and personalised smart experience. This tourist is open to innovations, social and pro-active and finds his or her natural environment in the smart tourism ecosystem and the smart destination”. The concept of the smart tourist will continue to evolve.

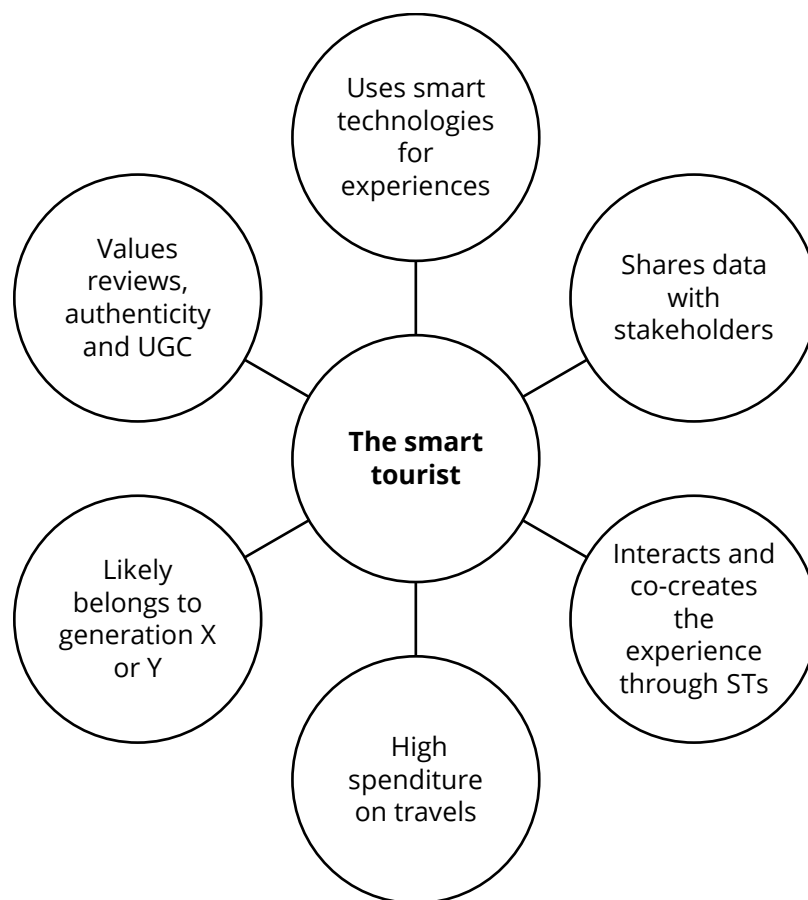


Figure 6. Characteristics of the smart tourist (paraphrasing Femenia-Serra et al. 2019; Gajdošík, 2020).

Furthermore, Femenia-Serra et al. (2019) have defined three technological aspects under-studied from scholars shaping tourists in smart destinations. First, tourists may have privacy and security reservations when it comes to sharing data. Not everyone is comfortable nor open in sharing their data with a companies or public agents to co-create enhanced experiences. Therefore, smart destinations need to make sure the privacy and security concerns are addressed in

handling the data and communicate it to tourists. Thus far the industry has taken for granted the tourists willingness to share their data (e.g. Gretzel et al., 2015b). However, tourists are likely willing to share their data when receiving better services in exchange (Neuhofer et al., 2015). Second, the level of acceptance and use of smart technologies between tourists vary and should be investigated, as they are needed to mediate and co-create experiences. Third, the perception of interacting and co-creating with other smart destination stakeholders via smart technologies is a crucial factor in smart destinations. The smart tourists need to trust the other stakeholder, remain in control, and voluntarily partake to the interaction and co-creation processes in their pursuit of the enhanced smart experience. (Femenia-Serra et al., 2019). These three aspects shaping the tourists support each other in successful creation of smart experiences and should not be neglected in smart tourism development.

More recent attention has focused on the profiling the smart tourists. Gajdosik (2020) argues for smart tourists as their own market segment with distinctive characteristics and travel behaviour. The smart tourist market segment is still under construction, but already fulfils the criteria to be considered as its own segment. Smart tourist segment takes about 14% portion of all tourists consisting mainly of the millennial generation, but also a considerable part of the segment consists of the generation X. The smart tourists differ from other segments in their higher usage of information technologies throughout the different trip phases. They are willing to co-create and share data for personalized solutions. In their choice of destination during the planning phase, reviews, authentic experiences, and user generated content (UGC) are valued. The segment is particularly interesting due to their notably higher spending in relation to other segments. (Gajdosik, 2020). In any case, change from mass tourists to smart tourist has been witnessed (Gajdosik, Marakova & Kucerova, 2021). This change will most likely continue to evolve along the evolution of ICTs. The Figure 6 sums up the most evident issues characterizing the smart tourist.

Despite the today's technology-driven society, scholars have also pointed out how not all tourists are willing to embrace ICTs. Gretzel et al. (2015b) discussed how the technology-dependence has implications for tourists without smartphones as well as for destinations for which the creation

of the smart infrastructure may be too costly. In addition to these, issues of consumer reluctance towards wearable technologies, information overload, loss of serendipity and temporary disconnection from the digital environment on vacation were brought up (Gretzel et al. 2015b; Jovicic, 2017). The view is supported by Neuhofer (2016), who argues for a possibility for a 'co-destruction' of value in connected experiences. Femenia-Serra et al. (2019) argue how the technologies should become an opportunity for the tourists willing to use them, rather than a strain for others. Destinations are suggested to create both connected and disconnected areas and situations, where the tourists holds the power to decide which direction to take (Femenia-Serra et al., 2019).

One has to also bear in mind the heterogeneous nature of the tourist. Smart tourists are not all the same and differ in their behaviour. According to Femenia-Serra et al. (2019), there are shades of smartness which vary from tourist to tourist depending on their fulfilment of the smart tourist characteristics. Some of the tourists may fulfil the characteristics only partially, yet still considered smart when co-creating their smart experiences (Femenia-Serra et al., 2019). Tourists are individuals with each of them having their own characteristics and sociodemographic background that influence on their attitude and the use of technologies, and further to their experiences (Femenia Serra & Ivars Baidal, 2021). Taking another perspective to this, Femenia Serra and Ivars Baidal (2021) suggest that the diversity of tourists can also pose an opportunity for a scalable strategy for DMOs. These statements are not surprising, as the concept of digital detox has been long established and there is demand for device free tourism services available. Taken together, these studies support the notion of Femenia Serra and Ivars Baidal (2021) that the reverse side of technologies and its influence on the value construction must be considered. The chapter that follows moves on to describe how utopias may be benefited within smart tourism context.

5 Utopian thinking in smart tourism development

The difficulties in realising the ambitious smart destination approach have inspired authors to respond in innovative ways (e.g. Gretzel, 2021; Tussyadiah & Miller, 2020). In their paper, Gretzel (2021) describes smart destinations as tourism utopias, where the tourism industry adds to the wellbeing and justice of the earth. Gretzel (2021) criticizes the prevalent style of smart tourism development and suggests Utopian thinking as an alternative method of development. In turn, Tussyadiah and Miller (2020) propose the exploration of visions and attitudes that the public holds towards the future to be useful in understanding their expectations for the technological development in tourism. Furthermore, in their paper especially *futuring* and other closely related techniques are seen beneficial in realistically anticipating people's future needs through the exploration of their imagination, and thus prepare for them (Tussyadiah & Miller, 2020).

In this paper, the focus is particularly on the idea of applying Utopian thinking in smart tourism development to bring forth especially the tourists perspective, as Gretzel (2021) suggests in their paper. Utopian thinking is about imagining an alternative future that differs in significant way from the present moment (Friedmann, 2020). Utopian thinking guides in choosing a desirable future that is 'justified', because it is informed by the values of the 'thinker' in question (Friedmann, 2000). According to Gretzel (2021), in majority of today's smart tourism thinking the different stakeholders focus on bettering their own situation and lack the collective view of utopias. Moreover, it is usual that in smart tourism development the residents or consumers are not included in envisioning, nor tourism businesses and destination management are in close enough collaboration in the process (Gretzel, 2021).

The so far prevalent top-down narrative goes against the participatory idea of governance in smart tourism development (Gretzel, 2021). Further, Gretzel (2021) argues that the status quo falls short to bring together the different tourism stakeholders in a joint work to create the kind alternative futures that would accomplish benefit for all. Indeed, the top-down approach ignores the literature suggesting for collaborative development and including other stakeholders, especially the tourists themselves, in the processes (e.g. Boes et al., 2016; Femenia-Serra & Ivars-

Baidal, 2021; Femenia-Serra et al. 2019; Gretzel 2021). Moreover, utopian thought has traditions in city planning (Friedmann, 2000) and as smart destinations are considered special cases of smart cities (Gretzel et al., 2015b), the usability of Utopian thinking in the context of smart tourism development seems just from this view.

Gretzel (2021) argues that the travel and tourism industry miss an opportunity in research as well as in practice when not recognizing smart destinations as utopias, using theoretical framework around utopias, and trying out the Utopian thinking method in smart tourism development efforts. In their paper, the Utopian thinking is argued to enable mobilizing actors in smart tourism development and for “developing strong smart city narratives that empower and go beyond practical roadmaps” (Gretzel, 2021, p. 5). Gretzel (2021) calls for a holistic and participatory smart tourism mindset to challenge the prevalent state of smart tourism development to accomplish tourism that is not alone smart but **good**. This study answers to this by benefiting Utopian thinking as a theory and strategy in the form of storytelling. The following chapter moves on to depict the study methodology in more detail.

6 Methodology

The goal of the study was to explore consumers' visions of their desired state of future travels (utopia) through storytelling. Hence, qualitative research approach was chosen suitable for the study, that aims for understanding of people's personal experiences on something expressed in words rather than numbers (Eriksson & Kovalainen, 2016; Ragab & Arisha, 2018). Typically for a qualitative approach, the research purpose is exploratory in nature, seeking to enhance understanding and provide insights of a topic (Ragab & Arisha, 2018). This applies here also here, where exploration of the consumers' perspective on smart technologies and the Tourist Information is sought. The insights gained will be further utilized in the smart tourism development of the Helsinki DMO, more specifically in rethinking the new Tourist Information service concept. Therefore, the study is not concerned with generalizations on a statistical level.

6.1 Methods of research

Following the qualitative approach, a case study was chosen as a research strategy for the study. Case study is understood as the kind of empirical enquiry that studies a contemporary phenomenon in a real-life context (Yin, 2014) and should be understood more of as a research strategy than a method (Eriksson & Kovalainen, 2016). Eriksson and Kovalainen (2016) consider case studies particularly appropriate in the production of holistic, context-specific, in-depth knowledge. This is suitable for the study, as it seeks to explore the envisioned relationship between the travelers, smart technologies and the Tourist Information services with a sole focus on the case of the Helsinki during the given strategic period. Furthermore, the study is an intrinsic case study, as it focuses to one case in depth (Helsinki Tourist Information office) and does not aim to make generalizations to other cases. (Eriksson & Kovalainen, 2016; Ragab & Arisha, 2018).

6.2 Data collection

Informed by the research approach and research questions, use of a narrative approach was decided as the most appropriate method of data collection for the study. Narratives are recognized crucial for research in the creation of touristic accounts (McCabe & Foster, 2006). McCabe and Foster (2006) argue that the tourists' natural attitude is 'narrativistic' and understanding tourist experiences requires a development of a narrative. Through narratives, the tourists may express themselves in a free and subjective manner (Tussyadiah, 2014). The use of narratives has also been advised to add on the tourists' perspective in using smart solutions (Femenia-Serra et al., 2019), hence the approach is suited for the study at hand.

The study benefits a narrative futuring technique in particular, where the future is being imagined through storytelling (Sools & Moore, 2012). A further definition of the narrative futuring is given by Wahle (2012 as cited in Tussyadiah & Miller, 2020), describing it as "the creative process by which one uses imagination and draws upon the knowledge and experience from the past and present, in order to construct a narrative about how the future could possibly be like". By using this technique, scholars have been able to anticipate changes for example in the future relationship between the ICTs and the travel and tourism industry (e.g. Tussyadiah & Miller, 2020). Similarly here, the study taps into the informant's imagination to anticipate changes in the future relationship between the travelers, smart technologies, and the Tourist Information.

Initially, the data collection was to be carried out in the form of a narrative interview. However, after conducting a few test interviews it appeared that the informants found challenging to spontaneously tell an imaginative story in the moment and needed time to wrap their mind around the task at hand. Due to this, the data collection was adjusted into a written form. Inspired by the Utopian thinking concept and narrative futuring technique, the informants were then asked to write a story, where they imagined traveling to Helsinki 20 years from now. The informants were instructed that there would be no limitations from reality during this imaginary trip and they would have a perfect travel experience from planning the trip all the way to returning back home. The instructions were designed as open as possible so that the informants

creative writing and use of imagination would not be limited. Even though strict instructions were not given, however, some optional guiding questions were offered to support the writing and encourage for relevant data to emerge. The instructions for writing the stories that were given to all the informants can be found in the appendices (Appendix 1.).

6.3 Selection of informants

Following the recommendation of using a bottom-up approach in smart tourism development, the data was collected from tourists visiting Helsinki area physically as well as from potential tourists in online environments during the summer 2022. The purpose was to include a variety of tourists of different ages and levels of 'smartness' to mirror the heterogeneity of tourists. This was accomplished by using purposive sampling method that is based on the expertise of the author. However, the sample was not expected to be representative of a wider population.

The potential informants were approached by the author in different locations around the Helsinki city centre as well as in online environments such as communities and groups in social media channels. First, the research purpose was explained to them. After, the willingness of the potential informant to partake in the research was asked. If the person was willing to participate in the study, they were given instructions to complete the task. During this, the potential informants were also asked about their basic demographic information to ensure the variety in the data, namely their age, gender, and country of origin.

The study reports altogether 12 stories. The stories followed a somewhat similar timeline from first planning the trip to travelling to the destination, and finally experiencing the destination (Helsinki). Regarding the demographic information, the study informants of the study had a good variation in their gender as well as the in their home countries. An overview of the informants (referred later to as travelers) are listed in the Table 1 below.

Table 1. List of the informants.

Informant code	Age	Gender	Country
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Informant code	Age	Gender	Country
I1	38	Male	Germany
I2	26	Male	Austria
I3	19	Female	Switzerland
I4	26	Female	Taiwan
I5	22	Female	Azerbaijan
I6	22	Male	Germany
I7	18	Female	Netherlands
I8	36	Female	Sweden
I9	35	Female	Mexico
I10	28	Female	India
I11	24	Female	Netherlands
I12	31	Male	Italy

6.4 Methods of analysis

The stories were analysed by using a thematic analysis, a commonly used analysis technique in qualitative research (Braun & Clarke, 2006) where themes are identified across the data (Eriksson & Kovalainen, 2016). Thematic analysis is a flexible method suitable in producing a rich, detailed though complex account of data (Braun & Clarke, 2006), that is also sought in this study. With thematic analysis, the author aims to explore the consumers' point of view on the future role of smart technologies and the Tourist Information based on the informant imaginary stories about their dream trip to Helsinki in the year 2042. Issues such as what is the consumers' perception of smart technologies and the Tourist Information, why would they use them, and how do they describe them in their travel experience were sought for interpretation from the data.

The thematic analysis was conducted with an inductive approach, meaning that the themes were developed in a data-driven manner (Braun & Clarke, 2006). The thematic analysis process followed the recommended steps by Braun and Clarke (2006), where the author was first familiarised with the data by reading and rereading the data. The initial codes were then developed by systematically going through the data while simultaneously gathering data for each code. The initial codes were then gathered into potential themes into the form of a thematic map. For example, when it was noticed that the travelers depicted using technologies when looking for travel related information, the search for information was chosen as a potential theme. The potential themes were then reviewed, and refinements were made. After careful refinement of the themes, four main themes were chosen as the final ones: use of technologies, search of information, role of the Tourist Information and lastly attractions and activities. Finally, the reporting of the results began. What follows is a detailed analysis of the findings organized according to the final themes.

7 Results and analysis

7.1 Use of technologies

All of the stories shared a vision of using technologies during the travel experience, hence it was chosen as the first theme. Apart from two stories (I8, I9), the travelers did not come up with technologies that would not exist already today in their visions. The travellers I8 and I9 described using a separate device or a gadget related to their travels. I8 described having given the device for guidance and bookings during their trip, whereas the I9 used the device during their whole trip cycle from booking the tickets to being a travel guide in the destination. Striking was, how the traveller I8 referred to the novel sounding device as a person (“he/she”). On the other hand, somewhat similar technologies are in the making that are also humanized (e.g. virtual assistant Amazon Alexa application), so it is no wonder the trend could develop even further. The traveller I8 also mentioned using other “exciting new technologies” in their story but did not go in detail what those would entail specifically.

“You are also given a device that will act as your resort guidance system. In your device you will find your personal booking assistant. He/She will help you book anything you wanna do during your trip.” (I8) (Citation 1.)

“I guess in 20 years there's something other than apps, maybe there's a gadget that is only for traveling and does everything, reserves tickets from plane, buses, trains, museums, hotels.” (I9) (Citation 2.)

The range of the technologies identified from the other stories varied from more common technologies such as software and web technologies to more advanced ones like virtual reality, augmented reality, and artificial intelligence. The different devices mentioned in the stories included smartphones, computers, tablet computers, VR glasses and interactive screens. Many of the technologies used in the narratives fall into the smart technology category. Especially the use of a smartphone throughout the travel experience dominated the narratives around

technologies, which is already an extremely popular technology in today's travels. The travelers I3 and I11 in the citations below provide typical examples of this in their stories:

"On my trips I use my phone, often Google Maps and specifically in Helsinki the HSL app and EasyPark." (I3) (Citation 3.)

"I will use my phone a lot during the trip to search for information about public transport and activities. It will make the trip a lot more enjoyable since all the information you need is right there with you." (I11) (Citation 4.)

Interesting was how the traveller I4 envisioned that in their ideal future there would be better chances to use free wireless technologies as a tourist (citation 5). This was compared to the current situation, where the traveller I4 did not have their own mobile data but was still able to find some public Wi-Fi's provided by restaurants and shopping malls. Indeed, if the travellers would have a better opportunity to use wireless technologies like Wi-Fi in the destination, they would be also more likely to benefit other technologies. In other words, the accessibility to wireless technologies supports the use of other technologies.

"I don't have my own (mobile) data during my travel in 2022, but I could go to the mall or Starbucks to connect the Wi-Fi. I feel it is enough, but in my dream trip 2042 I hope there are more free Wi-Fi area for me as a tourist." (I4) (Citation 5.)

A wish for a better ease of use and efficiency was found from many stories what came to use technologies when travelling (e.g. citations 6 and 7). First, combining different services on a single function was found as an overarching thought in some stories. For example, the traveller I1 (citation 7) mentioned how the different forms of public transport and electric mobility devices should be available together in one place for example in an application. The traveler I11, on the other hand, mentioned looking for flights, accommodation, activities, and restaurants within one website and wished that the process would be "easy and fast". Also the I9 expected the future technology to combine several functions and "do everything" in relation to their trip. Another

example of the desire for better usability came from the traveller I3 (citation 7), who mentioned it would be “cool” to have MyHelsinki, the official travel website of Helsinki, in the form of an application. However, simultaneously they doubted of downloading it, as their smartphone storage is already full. The traveler I9 suspected that applications might not even exist in 20 years.

“I love mobility so I would really like not to have different sorts of apps using the tram, metro, bikes, scooter etc. everything should be combined in one place.” (I1) (Citation 6.)

“I don't know if there is a MyHelsinki app, on one hand it would be quite cool but on the other hand I don't have enough storage on my phone anyways so I probably wouldn't download it.” (I3) (Citation 7.)

The views of the travelers I1, I3, I9 and I11 represent a typical way of thinking that is already present today, where people are getting tired of downloading an application for each purpose that fill up the smartphone storage spaces. The threshold to download an application has raised and only applications that are perceived truly valuable or necessary are downloaded. In addition to apps, visiting many, many different sites in relation to one trip is seen tiring. As the shift from creating numerous applications into having responsive websites is already taking place, even improved convenience is expected from the future use of technologies.

All in all, a variety of (smart) technologies were used by the travellers. Search for information was found as the most common reason to use technologies, therefore the next chapter moves on to discuss it as the second theme of the study.

7.2 Search of information

One of the reoccurring themes found throughout the stories was the search of information. In travellers' visions information was sought in different travel phases from planning to

experiencing the trip. Alike the traveler I1 in the citation 8, most of the travellers envisaged seeking information either on upon their arrival or on the go in the destination. This is an indication of the travellers' expectations for a prompt and smooth access to information within the destination. Generally, the travellers sought information of multiple travel related topics, namely of accommodation, activities, attractions, events, restaurants, transportation, reservations, and safety in Helsinki.

“After entering Finland my mobile phone, or an app on it makes good suggestions about what to do in Finland. [-] It makes suggestions based on the place we are going and also keeping like weather forecast in mind.” (I1) (Citation 8.)

7.2.1 Online information sources

All the travellers envisioned seeking information online via websites and applications. In their stories, the travellers searched for information independently online by benefiting technologies such as a smartphone or a computer. Travellers mentioned online information sources such as travel websites (Visit Finland, MyHelsinki, TripAdvisor, timeout.com), search engine machines (Google), web mapping platforms (Google Maps), and other applications (HSL, EasyPark). These online information sources received praise by the travellers due to their plentiful information including photos, reviews from other people and direct links to other websites. It was common for the travellers to combine several online information sources, as the traveller I3 put it in the citation 9. However, sadly the traveler I3 was not able to find much information about Helsinki from their usual travel website (timeout.com) but mentioned MyHelsinki as a good alternative for it.

“Usually when I plan a trip, I look up the city on Google and read some travel website. For example timeout.com is one I like very much. To Helsinki there is unfortunately not a lot on this website. However, I think the website MyHelsinki is quite similar and is well done.” (I3) (Citation 9.)

Interestingly many travellers envisaged a more advanced way of looking for information online. In some of these accounts, the travelers used an interactive screen upon their arrival to search for information of Helsinki and its activities (citations 10 and 11). The interactive screen had a possibility to filter the results according to one's preferences (e.g. type of an activity and pricing) in order to gain more accurate information. The interactive screen also provided detailed information about the activities' availability, location, and displayed them in a video format. The traveller I6 went in more detail to describe the interactive screen (citation 11). The traveller explained how the filtering system was developed together with test users and people who have already experienced the activities in question for best results. After the filtered search, it was even possible to share the results to one's own device to keep. These narratives provide great practical examples of how one can improve their travel experience via interaction.

"I would do some research on tourist information screens at the airport or train station. The screen should give me a virtual "preview" of Helsinki as well as short videos on what activities I could do there. Preferably I can filter my preferences (in the screen) before I get recommendations." (I2) (Citation 10.)

"Still at the airport I'd use an interactive terminal to look up a list of available activities in the city, where to find them and their price-ranges, sorted by type (e.g. sport, events, sightseeing, tours, restaurants, etc. while an activity can fall into multiple of those. These categories could be selected by designated testers and people who have gone there, voting on which tags describe it best or suggesting new tags). Once I've found a few interesting activities, I'd send them to my phone." (I6) (Citation 11.)

Another vision of a more sophisticated way to search for information online combined the use of wearables and devices with virtual and augmented realities. The travelers I8 introduced earlier, envisioned having given a personal device to guide and assist them with things to do during travelling, in other words, manage information for their benefit. In the same way, few travelers (I2, I6) described using a VR headset to search for information. In the first story, a VR headset

was used before the trip for a virtual room tour when booking an accommodation (citation 12). Use of a VR headset allowed the traveller to get to know to the look, view, and cleanliness of the rooms. This way, the traveller was able to get a more realistic understanding of the accommodation and book the 'perfect room' for them. The second traveller I2 envisaged using VR glasses and tablets when searching for information during their trip (citation 13). However, the traveller I2 did not go into detail how the virtual and augmented realities would be benefited in practice.

"To find my perfect room, I go on a virtual room-tour using a 360° camera (possibly hooked up to a VR-headset), seeing each room for myself before arrival and choose which one I want, as far it's available." (I6) (Citation 12.)

"I would appreciate VR glasses at the station or airport or AR tablets to carry with me and use within the city to get information." (I7) (Citation 13.)

Perhaps the most advanced vision of searching for information online came from the traveller I1, where they gained information in an automated fashion. Here, an Artificial intelligence powered smartphone or an application searched for information on behalf of the traveller based on their personal data upon the arrival. The data used was obtained from the travellers' social media profiles, location, and weather conditions (citation 11). In the social media profiles, the AI looked into things such as the personal interests, hobbies, and food that the traveller I1 and their family like in order to give 'good suggestions' for their travel itinerary in Helsinki. The AI powered automation benefited the traveller by giving them convenience, when their time and efforts for searching information was avoided.

"After entering Finland my mobile phone, or an app on it makes good suggestions about what to do in Finland. Taking my personal interests, hobbies, food I like etc. from my social media accounts the app knows what I and my family like. [--] It (mobile phone/application) makes suggestions based on the place we are going and also keeping like weather forecast in mind." (I1) (Citation 11.)

What was common to the latter examples of more advanced ways of looking for information, is how they all produced the kind of information that is more accurate to the person in question. In other words, using the more advanced technologies led to more advanced information for the travelers. Taken together, the results of this sub-theme indicate that travelers are already imagining using more advanced technologies for the benefit of their travel experiences.

7.2.2 Offline information sources

While seeking information online dominated the narratives, some travelers (I2, I4, I5, I6, I7) relied also to offline information sources in their visions. However, it was interesting to find how not in a single story the information was envisioned to be sought only offline; it was always combined together with online information sources.

Receiving assistance was part in all of the narratives when using offline sources. In these cases, the travellers gained information like recommendations from person-to-person either via the Tourist Information or from their own social circle. Few travelers (I4, I7) mentioned visiting a physical Tourist Information to ask questions and recommendations from the personnel. The traveller I6 described a hypothetic situation, where they would call a Tourist Information when seeking for more information that is not available online, or to hear about the personal experiences of other people (citation 12). In these stories the travelers saw the Tourist Information as a non-limiting source of personal information, where one could ask “any questions” and “all the questions” from the personnel.

“If I wish for more information or a personal experience, I'd call a tourist-information service, asking them any questions I have and who could connect me to people who have experienced the activity or place who are willing to talk to me.” (I6) (Citation 12.)

However, few travelers (I5 and I3) mentioned separately how the use of Tourist Information is not relevant for them to search information from. The citations 13. and 14. show how they described finding the information they searched for from somewhere else, referring to online information sources.

“Everything is available online.” (I5) (Citation 13.)

“I don’t think I’ve ever been to one (Tourist Information) in Helsinki and also in other cities it’s not really necessary for me since I get my information from elsewhere.” (I3) (Citation 14.)

All in all, the results in this chapter indicate that both the online and offline information sources are necessary, albeit the first of them is highlighted in clear. Besides, the information sought is expected to be highly accurate and rich in informativeness. Moreover, the results suggest that the personal connection is crucial for the travelers when seeking information from offline sources like the Tourist Information. The next theme describes the travellers’ visions of the Tourist Information in more detail.

7.3 Role of the Tourist Information

Travelers I2, I4, I6 and I7 envisioned using the Helsinki Tourist Information services in their stories. As mentioned in connection with earlier theme, the travellers saw the Tourist Information as a source for information. However, the information sought was described being extensive, that went beyond the limits of the information available online. The travellers reached out for the Tourist Information when they had questions or needed recommendations for activities such as alternative sightseeing routes or “must sees” (e.g. citations 15 and 16). Tourist Information was also envisioned as a place where the travelers could access information in different languages (citation 16).

“On the start of my trip in Helsinki, I would definitely go to a Tourist information fist. Where you can ask all of your questions of Helsinki, like what I must do or see.” (I7) (Citation 15.)

“I hope in Tourist information office, it could advise the nice route for people to browse the famous buildings in the city (not by the sightseeing bus) also in different languages.” (I4) (Citation 16.)

Traces referring to the desired location for the Tourist Information were also found from the stories (I2, I3, I6). As could be expected, the travellers envisioned using Tourist Information services in the airport, central train station and near the Esplanade Park, all of which are typical areas where travellers roam. In addition to visiting the physical location of the Tourist Information, travellers envisaged contacting it by calling. The results indicate that travelers wish for Tourist Information to be placed in typical location as well as a for a possibility to call and visit it physically as its service channels also in the future.

A personal connection between the Tourist Information personnel and the traveller was found highlighted in most of these stories (I4, I6, I7). Further, the traveller I7 went in more detail describing the Tourist Information to have a “warm” atmosphere, where a local elderly man enjoys sharing stories of their city to travellers over a cup of coffee (citation 17). Based on this description, the Tourist Information strikes as being a hospitable place and going there similar to visiting a friend.

“The Tourist information is a warm place with an old man who is the owner and loves telling about ‘his’ city where he always lived and who could tell and tell all day, and who gives you coffee when you come” (I7) (Citation 17.)

Indeed, the results indicate that the personal connection with the Tourist Information personnel is considered as a strength of the Tourist Information by the travellers. However, not all travellers looked for a personal connection from the Tourist Information in their vision. In turn,

travelers I2 and I6 mentioned using screens that were provided by the Tourist Information, but a person-to-person connection was missing from these narratives. This result is another indication how the travelers differ in how they wish to use services: while some look for personal connection and assistance, some are more independent and rely on self-service type of solutions.

The next theme moves on to describe the attractions and activities the travelers envisaged to find on the basis of their search of information on their dream trip to Helsinki.

7.4 Attractions and activities

Depictions of the attractions and activities the travelers envisioned to do in Helsinki were found from all of the narratives. Albeit the attractions and activities in the destination don't have to do directly with the study aims, some relevant information was found under this theme for the Helsinki Tourist Information new service concept, thus it was decided to include in the analysis.

One story stood out from the others with a more imaginative approach to the attractions and activities (citation 18.). In this vision, the traveler I8 had a full control over the course of their journey and its experiences. For example, they could choose to see the natural phenomenon of northern lights when they wished so. Yet most striking was their idea of a "virtual world", where the traveler had an unlimited access to whatever experiences they desired for whenever they wanted, if they were not satisfied what the destination had to offer. Even though it's an extreme example, it implies the aspiration of the traveler to do whatever they want whenever they want.

"And if you're still missing an experience you can visit "Virtual world" and just come up with it yourself!" (I8) (Citation 18.)

The presence of nature in Helsinki was came upon valuable for travelers in the stories. Nature was seen as a source of activities as well as a factor that differentiated Helsinki from a typical city environment. The traveller I4 in the citation 19. expressed a wish that Helsinki should keep its

special proximity with nature also in the future. Travelers envisaged doing hiking, geocaching, and taking walks in the Helsinki green areas. Furthermore, the traveler I1 suggested how nature related activities could be productized to provide improved motivation for travellers to pursue them (citation 20).

“I love the way Helsinki has lots of green trees, grasses, makes people feel like even though we live in the city, we can still hangout in natures. I wish even though one day in 2042 when we get everything automatically and life is getting more and more convenience, Helsinki could still look the same when I travel.” (I4) (Citation 19.)

“For even more motivation hiking routes are combined with some kind of badges after completing or combining it with geocaches as a motivation for the kids and myself.” (I1) (Citation 20.)

Many travelers envisioned to experience Helsinki in a local way. This was not surprising to find, as the ‘live like a local’ way of travelling where travellers seek for authentic tourism experiences has been trending in recent years. Travelers wanted to get local recommendations of things to do, eat local food, get to know to local traditions, and interact with the local people in Helsinki as shown in the citations 21 and 22. While some of these stories (e.g. citation I5) were after the “non-touristic” experiences, simultaneously the same stories mentioned visiting the main attractions, which are typically considered touristic.

“I dreamed of a local place, with an old couple who can tell me what I should do, eat, see, and experience in Helsinki.” (I7) (Citation 21.)

“Then I would visit the main sights and try local food. I would also like to try new experiences with locals on Airbnb like saunas, boat trips, etc.” (I5) (Citation 22.)

Travelers ideas of other activities in Helsinki indeed included more typical things like taking walks, visiting restaurants and cafes, going on boat tours, exploring the city with the electric

scooters, seeing the usual attractions such as the main churches and harbours. The traveler 17 in the citation 23 went in detail to describe their idea of their dream trip to a wintery Helsinki. It captures well how the things that are ordinary for the locals can in fact be the exotic things for the travelers.

“And I really want to experience how that (winter) feels in Helsinki. Dressing up really warmly with gloves, scarf, and a woollen hat, walking in the streets of Helsinki with lights everywhere, walk onto a coffee place to warm up, eat fish.” (17) (Citation 23.)

In overall, these results indicate that the travelers of the study look for a great variety of attractions and activities: from virtual ones to more typical ones that have to do with the local way of living and nature. The Table 2 summarizes the main findings of the study according to their main theme. Together they can provide important insights into to the development of the new service concept for Helsinki Tourist Information. The next chapter, therefore, moves on to discuss these findings in relation to literature as well as their managerial implications.

Table 2. Summary of the main findings regarding consumers visions of travel in Helsinki by theme.

Theme	Finding
Use of technologies	Smart technologies have a crucial part in the travel experience
	A Smartphone (or other smart device) is an important travel assistant and guide for travelers
	Travelers differ in their level of competence and preferences for using technologies
Search of information	Technology-enabled online sources are the primary source of information for travelers
	Travelers expect advanced technological solutions to give them more accurate information

Theme	Finding
	Travelers are willing to share their data to access more accurate information
Role of the Tourist Information	TI services are seen as relevant also in future
	TI has a physical location in addition to online channels
	TI has a hospitable atmosphere with a staff of local experts
	Specialized human knowledge available in TI is seen as valuable
	The possibility for personal contact in service situations is important in TI
	TI contributes to the maintenance of technological infrastructure in the destination
Attractions and activities	The Live like a local trend continues
	Helsinki differentiates positively by its nature proximity
	Typical activities and attractions remain interesting for travelers

8 Conclusions

8.1 Discussion of the findings

Following the recommendations from prior research, the study benefited from a bottom-up approach and Utopian thinking in a smart tourism development scenario. In this connection, the study aimed to explore consumer visions on the future of travel, and especially the use of smart technologies and the role of Tourist Information within them. In practice, this meant analysing fictional stories that the informants had written of their ideal trip to Helsinki in the year 2042. With this, the second aim of the study was to provide useful insights into the development of the new service concept for the Helsinki Tourist Information. What follows, is a discussion of the main findings in relation to the research questions of the study.

1. How do travelers envision their ideal trip to Helsinki in the future?

Overall, the travelers envisioned quite an ordinary state of future of travel on their 'dream trip'. The travelers' imagined futures were largely formed by their perspectives on different ways to gain travel-related information and descriptions of the things to do in Helsinki. In their visions, the travelers were particularly interested in activities that had to do with nature and the local way of living in Helsinki. Helsinki was seen to differentiate from other cities by the distinct presence of nature in its city-like environment. Against the author's own prejudices, the visions of attractions and activities in Helsinki lacked utopistic and futuristic features; the travelers envisioned mostly doing the kind of things considered typical for tourists such as seeing the main churches and taking a walk by the seaside.

The travelers' visions were found quite limited in their imaginativeness also as a whole. Despite that the instructions were planned to encourage the informants to use their imagination to its fullest, apart from one narrative, the visions in this study were found realistic. Rather than describing the year 2042, most of the narratives could have been also depictions of today's environment. Perhaps the informants' difficulty to imagine the future could be partially

explained by the uncertainty of today's environment, where different crises take place. Moreover, the evolution of technologies is fast-paced and difficult to predict. Nevertheless, this observation differs from the prior similar research (e.g. Tussyadiah & Miller, 2020), where extremely utopistic futures have been found in consumer imaginations. The reasons for this are difficult to explain. The divergence between the studies could stem from the authors' different levels of experience in research, circumstances at the time, or perhaps the given instructions for writing the stories. However, the futuring approach in the (smart) tourism context is still quite novel in research, hence not too many studies exist for an adequate comparison. More importantly, the study was able to find plenty of relevant insights on the travelers' perspective on what came to using technologies and Tourist Information services in the visions to cover the rest of the research questions sufficiently.

1.1 What kind of perceptions do travelers have on using (smart) technologies?

The use of (smart) technologies was found to have a crucial part in the travelers' visions. Technologies were the enablers of the envisioned travel experience and benefited the travelers for example by saving their time and effort. This finding is single-minded with the literature, where technologies are seen to enhance travel experiences, or in other words, give value to it (e.g. Femenia-Serra et al., 2019; Huang et al., 2017; Buonincontri & Micera, 2016; Gretzel et al., 2015b). In their visions, the travelers used technologies extensively, especially in planning the trip when seeking information about Helsinki and its activities. This is similar to previous research, where travelers typically use technologies to search for information for better decision-making (Buhalis & Amaranggana, 2015). Further, the travelers used technologies to get around in Helsinki and make travel arrangements such as purchasing accommodation or an activity. These results are similar to the typical examples in the literature on how the technologies may help travelers in gaining information, navigation, and make bookings (Neuhofer et al., 2015).

The travelers envisioned using state-of-the-art technological solutions, that were depicted as effortless and efficient to use. In the visions, the advanced technologies facilitated the travelers' experience by giving them plentiful travel related-information with possibilities for filtering,

interaction, and personalization before the trip as well as on the go in destination. This finding is similar to the views in the literature of how travelers are becoming more demanding, expecting personalized, real-time accessed information for their experience enhancement throughout the different trip phases (Jovicic, 2017; Buhalis & Amaranggana, 2015; Tussyadiah & Fesenmaier, 2009). The travelers were found to appreciate the same attributes in smart technologies that give value to their experience as in the previous studies (Jeong & Shin, 2020), namely their informativeness, accessibility, interactivity, and personalization. These attributes led to giving more advanced and accurate information for the travelers to benefit from within their travel experience.

In order to receive the more advanced information for example in the form of recommendations, travelers envisioned sharing their personal data such as their social media profiles and location when using smart technologies. This is similar to the arguments by Neuhofer et al. (2015) and Femenia-Serra et al. (2019) that tourists are typically willing to share personal information in exchange for better services, or in other words, value. Simultaneously, it is evidence of the travelers' willingness for *value co-creation*, referring to the use of smart technologies to create experiences with other stakeholders (Femenia-Serra et al., 2019). Together these findings are in accordance with the depiction of *smart tourists* in the previous studies (Femenia-Serra et al., 2019; Gajdošík, 2020) as the travelers imagined sharing their data, using smart technologies, and interacting with other stakeholders, this way co-creating smart experiences that were enhanced and personalized.

However, not all travelers envisioned using technologies in the same way. While the majority imagined using more advanced technologies like virtual reality and relied only on online information sources, some preferred more common technologies such as the smartphone and benefited also offline information sources like the physical Tourist Information office. This finding goes along with the argument by Femenia-Serra et al., (2019) of how travelers represent 'shades of smartness', meaning they differ in their attitudes and behaviour when interacting with a smart destination. Similarly here, the heterogeneity among the travelers was recognized from the narratives.

1.2 What kind of perceptions do travelers have on the role of Tourist Information?

What comes to the travelers' perceptions of the desired state of Tourist Information services, firstly, Tourist Information was found to have a notable role also in the future. About half of the travelers mentioned the existence of Tourist Information in their vision of the ideal travel experience. The travelers envisioned contacting Tourist Information when they were looking for information in different travel phases such as when planning the trip. The Tourist Information was envisioned to be located in a central place for travelers like in the airport or the central railway station. Further, the Tourist Information was described to have a homelike atmosphere with a staff consisting of local professionals who are passionate advocates of their beloved city. This indicates that Tourist Information is still on the top of mind for travelers and its services are relevant for them.

In their visions, the travelers turned to Tourist Information services especially when they sought the kind of information that may not be available online through a person-to-person connection. In fact, travelers particularly appreciated the availability of more advanced information than online as well as the possibility for human interaction what came to Tourist Information services. These findings are evidence of the travelers' appreciation for the human element that cannot be achieved by means of technology, at least for the time being. Further, the findings are compatible with the literature arguing how (smart) technologies should not replace real human encounters (Neuhofer et al., 2015).

Finally, Tourist Information was also seen as the provider of the interactive screens that the travelers envisioned using when searching for information on site at the destination. The travelers' view is similar to the argument by Femenia-Serra et al. (2019), which sees the DMOs as responsible for the creation and maintenance of the travel-related technological infrastructure in (smart) destinations, such as the interactive screens in this case. The chapter that follows moves on to draw conclusions from the study findings.

8.2 Theoretical conclusions

The findings of this study make several contributions to the current literature within the smart tourism context. To begin with, the study contributes to the call for research to add on the tourists' perspective in the smart tourism and futuring contexts (Gretzel, 2021; Gajdošík, 2020; Femenia-Serra et al., 2019; Tussyadiah & Miller, 2020) in a novel way when trying out a bottom-up approach in the smart tourism development scenario of Helsinki. Moreover, the study contributes to research by being one of the first attempts to explore the possibility of using the Utopian thinking concept in a smart tourism context (Gretzel, 2021). The use of Utopian thinking concept was an effective way to uncover one's desired turn of events, in this case, the travelers' ideal travel experience. Despite the study's exploratory nature, it succeeded in offering some insights into the outlooks regarding tourists, technologies, and Tourist Information within a smart destination scenario. Further, the study affirms some of the arguments in the existing literature around the topic. A detailed account of these contributions is discussed next, followed by conclusions of the study.

First, in the visions of the future of travel, the use of state-of-the-art technologies came about as the most current issue in the travelers' experience. This finding is affirming to the previous research, where the importance of smart technologies for the traveler experience (Femenia-Serra et al., 2019) and the active role of the traveler in the creation of a smart tourism experience (Gretzel et al., 2015b) has been widely recognized. By interacting with smart technologies the travelers envisioned gaining high-quality information in real-time that was adjusted to their personal needs and preferences. This then supported them in their decision-making in the different trip phases. This finding is similar to the arguments in the literature of how smart technologies may improve traveler experience in different ways (e.g. Jeong & Shin, 2020; Femenia-Serra & Neuhofer, 2018; Huang, et al., 2017; Buhalis & Amaranggana, 2015; Gretzel, et al., 2015a; Neuhofer et al., 2015). Whereas the literature sees smart technologies to 'enhance' the tourist experience, thus implying them to add something on top of an already existing experience, this view is taken further here as the smart technologies are argued to be fundamentally part of the tourism experiences of the future.

According to the study findings, travelers were ready to share their data when using smart technologies in their pursuit of the aforementioned more accurate or advanced information in their future travels. Further, the travelers' narratives included visions of interaction with other stakeholders and co-creation of the experience. Together these findings confirm the under-researched question of whether travelers are truly willing to accept and use smart technologies (Femenia-Serra et al., 2019). In earlier research, destinations and the whole smart tourism idea have been accused of taking for granted the tourists' willingness to embrace and engage with smart technologies (Gretzel et al, 2015b; Gretzel et al, 2015c). In addition, the findings further validate the conceptualisation of the *smart tourist* by Femenia-Serra et al. (2019) as well as the profiling by Gajdošík (2020) of smart tourists as a market segment of their own.

In a way, the Tourist Information and its human element was an extension of the connected traveler experience by offering travelers the things that they couldn't achieve by using smart technologies. These findings concur with the literature on how smart technologies are not to substitute human encounters, but to support the strategic improvement of tourism experiences (Neuhofer et al., 2015). However, this doesn't mean that Tourist Information would have been outside the smart destination scenario. On the contrary, the Tourist Information was also a part of the travelers' smart experience when it was seen as the one providing the technical infrastructure in the visions, corresponding to the earlier arguments in Femenia-Serra et al. (2019). As the Tourist Information is usually part of the DMO of the destination (like in the case of Helsinki), the study contributes to the discussion around smart destinations. Further, the research contributes especially to the limited discussions on the role of Tourist Information within smart destinations and smart tourism overall.

Finally, some conclusions can be drawn from the study findings on the future of travelers, technologies, and Tourist Information within a smart destination scenario. The study argues that smart technologies will become a foundational part of the future tourist experience as travelers will continue to engage with them to a greater extent to add value to their experiences. Furthermore, travelers will expect more sophisticated technological solutions from smart destinations in their search for the more advanced information, or simply put, **better**

information. Concerning the role of Tourist Information, the human element is argued to be its key strength in the future. Moreover, providing the kind of information that is not readily available online via personal connection as well as contributing to the technological infrastructure of the destination are seen as the most important tasks of Tourist Information in the future.

8.3 Managerial implications

The findings of this study provide practical learnings for DMOs and businesses in their smart tourism development. Being a case study, these managerial implications are viewed here especially through the lens of the Helsinki Tourist Information and the development of its new service concept, while keeping in mind the city's strategic pursuit to be developed into the smartest destination. What follows is a discussion of how the research findings may be adapted to practice first by defining the suggested future role of Tourist Information. After, the Tourist Information is given practical suggestions of action in relation to travelers' different trip phases.

Role of the Tourist Information in the future

Despite travelers, destinations, and tourism overall becoming smarter, the study results indicated that Tourist Information has a secured spot also in the future of travel. While many travelers found their travel-related information from other sources, they also saw the Tourist Information being there for them as an alternative option to contact if necessary. Moreover, even with technologies taking up more space, simultaneously there is a demand for disconnection, from which the Tourist Information may benefit from. After all, not all travelers wish to be connected at all times and the digital detox is already a 'thing' today. Benefiting the Tourist Information and its person-to-person connection can be refreshing for a change to travelers in the digitized world. Tourist Information providing human encounters and having a physical location are important here. In a way, the Tourist Information could be like an old friend for the travelers: even though they may not stay in touch that often anymore, they know that it will be there for them when needed.

The traveler experience

Access to the so-called better information came about as one of the most valued issues from travelers' visions. With this, traces of the travelers' desires for interaction, informativeness, personalisation, and real-time connectedness were found when using sophisticated technological solutions in the narratives, implying the travelers become more informed and demanding. The Tourist Information of Helsinki can benefit from this information to ensure their competitiveness in the future, where smart technologies such as Artificial intelligence can be of help. Practical suggestions of how this may be done in practice are described next in relation to the different trip phases.

Planning the trip

Firstly, the TI may help travelers in their planning phase to make informed decisions through offering the relevant travel information in the destination website. As the travelers were found to look for information in a variety of online sources, the positioning of the destination website and Tourist Information in search engines is important. To drive traffic to its own channels continuous search engine optimization and marketing are of focus. What comes to the content creation, it is suggested bear in mind how the travelers appreciated the nature proximity, local way of living but also the usual touristic things to do in Helsinki and then keep on pushing this type of content. Further, it is suggested to benefit the user-generated content, that is more trusted by the travelers and simultaneously contribute to community management. As the travelers benefit a variety of sources, consideration to improve the presence of Helsinki and TI also outside their owned channels such as in other travel websites is suggested. As an example, TI could actively engage with travelers on TripAdvisor. A holistic support of the future travelers in their planning phase would also mean upgrading the destination website MyHelsinki into a smarter level with the following suggestions.

To begin with, when planning the trip the travelers could search for information in the responsive destination website in an advanced way. The search results would be shown as more illustrative for example in a map view or according to their price level and customer rating. The search results would include detailed and rich information suitable to the type of content in question. For example, in the case of an activity or attraction, the information would include details such as reviews, availability, location, best hours to visit, sustainability, and where to book it. This information would be updated in real-time. Most preferably the travelers could safely book activities directly on the destination website. If the traveler would not find the information they were looking for, they always have the option to contact the Tourist Information professionals by chat (chatbot outside the office hours), calling, email, or even through a video call for a more in-depth consultation. Furthermore, the travelers could make a personalised itinerary suggestion on the destination website according to their own needs and preferences what comes to the trip length, interests, travel company, budget and so on. Even a more advanced option is available if the traveller is willing to share their personal data. In that case, the AI powered website can make a personalised itinerary suggestion automatically based on the analysis of their data. The traveler may also list and share the website contents easily to other channels without having to first register or log into the website. Finally, an option for the travelers to get to know to Helsinki through virtual reality could be considered within the destination website.

During the trip

During their trip, the travelers could use the aforementioned upgraded destination website also in interactive screens that the informants mentioned in the narratives. The interactive screens would be placed in strategic locations in the city as well as in the physical Tourist Information. However, the travelers could also benefit the destination website on their own devices during the trip effortlessly, as they could connect to a public Wi-Fi available in the city (Wi-Fi would be easily found in English). In addition to the above possibilities, the travelers could benefit the destination website in an 'on-site' mode by allowing the website to track their location and use the camera of their device. By using the on-site version of the website on their device, the

travelers could get topical suggestions of things to do in Helsinki on the go and Augmented reality enabled virtual enhancements integrated to their environment. For example, a traveler could get a notification of an event taking place near them that matches their interests or see informative details of an attraction in their surrounding by looking it through their device camera.

After the trip

In the after-trip phase, the TI could make further use of the community and reputation management by engagement with travelers online. In practice, this would mean actively asking for reviews from the travelers, taking part in their discussions and learning from their opinions in both TIs own channels as well as outside in other medias. Moreover, this would also include interaction with the valuable traveler-generated content and making use of it in Tis own channels.

Together the actions introduced contribute to the travelers' desire for interaction, informativeness, personalization and real-time connectedness found both in this study as well as in the literature (e.g. Femenia-Serra & Ivars-Baidal, 2021; Jeong & Shin, 2020; Buhalis & Amaranggana, 2015; Neuhofer et al., 2015) and may then result to more satisfactory, co-created smart experiences for travelers that have long-lasting effects to their loyalty and revisit intentions towards Helsinki. Taken together, they may lead Helsinki to achieve the main goal of smart destinations: improving the tourist experience (Femenia-Serra et al., 2019). Ultimately, these actions may improve the competitiveness of Helsinki as a destination. However, to prove this, the TI should monitor the performance of the suggested practices and implement possible follow-up actions.

Lastly, it should be mentioned that although some of the suggestions may strike as being ambitious and require notable investments, they are in harmony with the bold goal of developing Helsinki into the smartest destination. Furthermore, even if not implemented as such, the reasoning behind the suggestions can be taken as an inspiration or guidance for the

development of the TI of the smartest destination. In addition, the introduced measures induce direct benefits not only to the travelers but also to the TI and the whole DMO. First, the TI professionals can benefit from the suggested advanced search function on the destination website internally as a tool in their training and when consulting travelers. Moreover, the TI would gain a lot of data that they could use to proactively refine their operations (knowledge management), as opposed to the reactive style when getting data in hindsight from the official tourism statistics. All in all, as the smart transformation continues, most likely the benefits gained from the use of smart technologies would exceed their costs in long term, thus investing in smartness would be strategically worthwhile for the Helsinki TI.

8.4 Critical evaluation of the study

What follows is a discussion of the trustworthiness of the study. To begin with, conducting a successful literature review on the topic was found challenging, as the research on the novel context of smart tourism is not fully established yet. To date, unclarities exist on the definitions and conceptualisations related to the recent topic. Further, there is little evidence of how smart destination scenarios are actually achieved, thus the real success of the study is difficult to evaluate in the lack of sufficient comparison. The literature review of the study managed to cover the main issues on the topic and build a bridge between them, despite the literature seeming to be scattered in between times.

In an intrinsic and intensive case study the main focus is on the case itself, and generalization of the produced knowledge is not sought (Eriksson & Kovalainen, 2016). Being an intrinsic case study, the results of this study are not directly applicable to other destinations than Helsinki. To test the study results, a similar kind of research setting could be conducted in other destinations. The study's purpose was to explore and provide insights of a context-specific topic, where the qualitative approach was found as a valid choice. Despite the narrative futuring being a novel method for the author as well as in smart tourism development, it led to some valuable insights for the Helsinki Tourist Information and was hence deemed successful. According to Eriksson & Kovalainen (2016), thematic analysis can be used to examine narratives to find patterns or

themes in them. Also here, the data-driven thematic analysis allowed relevant themes to emerge naturally from the data and was therefore proven as a suitable method of analysis. A limitation was the somewhat small sample size. Perhaps a greater validity could have been achieved with a larger sample, that would have brought the study findings even closer to “truth” (Eriksson & Kovalainen, 2016). Moreover, using another method in addition to the narrative futuring could have enhanced the overall credibility of the study. However, using multiple methods for data collection would have exceeded the scope of a master’s thesis study. In conclusion, the author’s familiarity with the topic and the retrieved data were seen as sufficient to achieve a desirable level of credibility for the study (Eriksson & Kovalainen, 2016).

Some other learnings came upon regarding the data collection as well. During the test interviews, it was noticed that coming up with an imaginative story was difficult for the informants. The reason for this might have been the pressure of the moment affecting negatively to the informants’ use of imagination. This is understandable, as more typically the informants talk about their already existing experiences and views, which are usually easier to access than their imagination. It was then thought that a more private and peaceful moment could allow better stories to emerge, thus the data collection method was changed into narrative futuring conducted in a written form. This technique has been already used in futuring tourism studies (Tussyadiah & Miller 2020) and has thus proven successful. However, the narrative futuring method in a written form did not allow probing of answers, which is considered limiting.

Lastly, getting informants to partake in the study was found challenging. The informants took part in the research voluntarily while being aware of how their answers would be benefited. These issues were made clear in the beginning when contacting the potential informants. Many of the potential informants agreed to take part in the study but did not complete the task. A better incentive for the informants to successfully participate in the research could have been helpful in this matter. It can be discussed whether a higher willingness of the informants to participate could have resulted not only in a larger sample size but also in richer data. Limitation was also the lack of representation of some of the key target markets of Helsinki (USA and Great Britain) as well as the relatively young age of the informants. Despite these issues, the main

findings of the study reoccurred in most of the stories. However, the incentive issue is recommended to be considered in the future. More suggestions for future research are discussed in the chapter that follows.

8.5 Suggestions for future research

The study provides a fruitful basis for further research. It was argued here that the Tourist Information office has a role also in the future of travel in which smart technologies are crucial. As a continuum for this research, future studies could deepen the understanding of the desired role of Tourist Information and the use of smart technologies within to refine the service concept. For example, conducting interviews would allow probing of the answers that was not possible here. The interviews could use the findings from this study as a basis and then extend the discussion from there. However, approaching the topic also from a quantitative approach is recommended and could potentially confirm the findings of this study. Furthermore, a quantitative study would allow generalization which was not possible here due to the qualitative nature of the study. In any case, the use of a bottom-up approach is suggested also in future studies to include the travelers' perspective. This way, the new service concept is more likely to succeed, as it is co-created with travelers hence truly customer-oriented.

Outside of the Helsinki and the Tourist Information office context, further research should focus on determining how the ambitious goals of smart destinations can be achieved in practice. This study provided only one somewhat novel example of this by exploring the use of the Utopian thinking concept in a smart destination scenario. Further experimental investigations are needed to find ways to do smart tourism development while engaging travelers in the process. A similar need is also recognized in prior studies (Gretzel, 2021; Femenia-Serra et al., 2019) and the research gap remains relevant to date.

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Appendices

Appendix 1: Instructions for writing the story.

How does the travel look like in the future?

Imagine that you travel to Helsinki in the year 2042 and write a story about it. Think of it as your dream trip, where you have the most perfect travel experience. Note that there are no limitations from reality: everything you can imagine for is possible!

You can write freely your own kind of story, however, here are some questions that may help in writing:

- When planning the trip, what kind of information do you look for? Where do you find this information?
- Describe your experience in Helsinki. What kind of things do you do there?
- If there is a Tourist Information office available, describe it (location, look, feel, services available etc.)
- How do technologies help you during this trip? (Technologies such as smart phone, wearables, applications, or whatever available at the time)

There is no length requirement for the story. Participating is anonymous.

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